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**A Study on the Feasibility of Creating a Web-  
Accessible Marine Mammal Sound Library Based  
upon the Collections at the Woods Hole  
Oceanographic Institution**

by

Mary Ann Daher

September 2008

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## **Project Overview**

This project was divided into two tasks, the first being a study to determine the possibility of creating a universally web-accessible call library using the William A. Watkins/William E. Schevill marine mammal acoustic data collection housed at the Woods Hole Oceanographic Institution. This first task included reviewing the recordings and compiling a list of recordings by species, noting the geographic location, time of year and quality (SNR) for each recording and author of each recording, with an ultimate goal being the creation of vetted acoustic datasets of selected species of marine mammals that would serve as reference datasets for researchers. The second task was a review of the ten years of North Pacific Ocean SOSUS data collected by W. Watkins and the sonobuoy marine mammal call detection data collected by K. Stafford and others. We were tasked to evaluate and correlate marine mammal vocalizations that may have been recorded on each of these systems in the same geographic region.

The findings for Task 2 will be addressed in a separate final report and delivered at a later date. The present document is the final report for Task 1. In more detail, Task 1 and its milestones were as follows:

### **Task 1:**

A. Initiate a review of the Watkins library of marine mammal recordings. Confirm that all analog recordings have been digitized at a sample rate of 192 kHz and copied onto duplicate DVDs. Confirm that all associated metadata have been properly entered into a searchable PC database.

*Milestone:* First complete inventory of the Watkins digitized marine mammal sound library and associated metadata. (Appendix 1)

B. Review the recordings and compile a list of recordings by species, noting the geographic location, time of year and quality (SNR) for each recording. Contact all recordists whose material is included in the Watkins sound library and request permission to include their material in a web-accessible archive.

*Milestone:* A list of digitized recordings arranged by species with a notation of SNR for each recording. (Appendix 2)

C. Prepare a preliminary report on the findings of **Task 1 A** and **B**, identifying potential recordings for inclusion into web-based reference datasets.

*Milestone:* The first detailed catalog of the recordings of marine mammal vocalizations contained in the Watkins library. (Appendix 3)

D. Identify and review web-accessible archives of marine mammal sounds. Assess web page formats including choices of displaying metadata.

*Milestone:* Assessment of state-of-the-art web-accessible sound libraries. (Appendix 4)

E. Prepare a final report on the content and quality of recordings of the Watkins marine mammal sound library. Discuss the feasibility of creating a universally accessible web-based archive. Include preliminary cost estimates for creating and maintaining a web-based archive.

*Milestone:* Documentation on the findings of this work including the potential contribution of a universally web-accessible Watkins digital tape library. (Appendix 5)

## Appendices for Final Report submitted pursuant to award number N00244-07-1-0014

### Appendix 1: First complete inventory of the Watkins digitized marine mammal sound library and associated metadata.

**Milestone: October 2007**

An initial review of the Watkins library of marine mammal recordings has been completed. Recordings of approximately 70 species of marine mammals are stored in the Woods Hole Oceanographic library. Table A1-1 is a list of species in the library. The recordings cover the years from the 1930s to the early 2000s. The recordings range from 1-4 channels. The recorded bandwidth ranged from 0 to nearly 100 kHz. To date, approximately 500 analog recordings have been digitized at a sample rate of 192 kHz. The metadata for each recording are organized in a searchable PC database. The fields comprising the metadata for each recording are listed in Table A1-2.

**Table A1-1.** List of species recordings in the Watkins Sound Library in Woods Hole

<i>Arctocephalus</i>	<i>Philippii</i>
<i>Arctocephalus</i>	<i>Townsendii</i>
<i>Balaena</i>	<i>Mysticetus</i>
<i>Balaenoptera</i>	<i>Acutorostrata</i>
<i>Balaenoptera</i>	<i>borealis</i>
<i>Balaenoptera</i>	<i>edeni</i>
<i>Balaenoptera</i>	<i>musculus</i>
<i>Balaenoptera</i>	<i>physalus</i>
<i>Callorhinus</i>	<i>ursinus</i>
<i>Caperea</i>	<i>Marginata</i>
<i>Cephalorhynchus</i>	<i>commersonii</i>
<i>Cephalorhynchus</i>	<i>heavisidii</i>
<i>Cystophora</i>	<i>Cristata</i>
<i>Delphinapterus</i>	<i>leucas</i>
<i>Delphinus</i>	<i>bairdii</i>
<i>Delphinus</i>	<i>capensis</i>
<i>Delphinus</i>	<i>delphis</i>
<i>Enhydra</i>	<i>lutris</i>
<i>Erignathus</i>	<i>barbatus</i>

<i>Eschrichtius</i>	<i>Robustus</i>
<i>Eubalaena</i>	<i>Australis</i>
<i>Eubalaena</i>	<i>Glacialis</i>
<i>Eumetopia</i>	<i>Jubatus</i>
<i>Globicephala</i>	<i>Melaena</i>
<i>Globicephala</i>	<i>Macrorhynchus</i>
<i>Globicephala</i>	<i>Scammoni</i>
<i>Grampus</i>	<i>Griseus</i>
<i>Halichoerus</i>	<i>Grypus</i>
<i>Hydrurga</i>	<i>Leptonyx</i>
<i>Inia</i>	<i>Geoffrensis</i>
<i>Lagenodelphis</i>	<i>Hosei</i>
<i>Lagenorhynchus</i>	<i>Australis</i>
<i>Lagenorhynchus</i>	<i>Obscurus</i>
<i>Lagenorhynchus</i>	<i>Acutus</i>
<i>Lagenorhynchus</i>	<i>Obliquidens</i>
<i>Leptonychotes</i>	<i>Weddelli</i>
<i>Lobodon</i>	<i>Carcinophagus</i>
<i>Megaptera</i>	<i>Novaeangliae</i>

<i>Mirounga</i>	<i>angustirostris</i>
<i>Monodon</i>	<i>monoceros</i>
<i>Mustelidae</i>	
<i>Neophoca</i>	<i>Cinerea</i>
<i>Neophocaena</i>	<i>phocaenoides</i>
<i>Odobenus</i>	<i>rosmarus</i>
<i>Ommatophoca</i>	<i>rossi</i>
<i>Orcinus</i>	<i>Orca</i>
<i>Otaria</i>	<i>flavescens</i>
<i>Peponocephala</i>	<i>Electra</i>
<i>Phoca</i>	<i>Fasciata</i>
<i>Phoca</i>	<i>Groenlandica</i>
<i>Phoca</i>	<i>Hispida</i>
<i>Phoca</i>	<i>Largha</i>
<i>Phoca</i>	<i>Vitulina</i>
<i>Phocoena</i>	<i>phocoena</i>

<i>Phocoenoides</i>	<i>Dalli</i>
<i>Physeter</i>	<i>Catodon</i>
<i>Pseudorca</i>	<i>Crassidens</i>
<i>Sotalia</i>	<i>Borneensis</i>
<i>Stenella</i>	<i>Attenuate</i>
<i>Stenella</i>	<i>Coeruleoalba</i>
<i>Stenella</i>	<i>Frontalis</i>
<i>Stenella</i>	<i>Longirostris</i>
<i>Steno</i>	<i>Bredanensis</i>
<i>Trichechus</i>	<i>Manatus</i>
<i>Tursiops</i>	<i>Catalania</i>
<i>Tursiops</i>	<i>Truncatus</i>
<i>Zalophus</i>	<i>Californianus</i>
<i>Ziphius</i>	<i>Cavirostris</i>

**Table A1-2.** Metadata Fields

Field Name	Description
Record Number	Tape retrieval number
Cue or Time at tape end	Cue or time on tape (sec)
Number of Channels	Number of channels recorded
Identification of vocal animal	ID of animal vocalizing
Age	Age, sex of vocalizing animal
Behavioral Interaction	Behavioral activity of animal
Genus Species	Genus/species of vocalizing animal
Geographic Location A	ASFIS code (ex. ANW = Atlantic NW)
Observation Date	Date of recording
Notes	Details on recording observations
Other Species	Other species present during recording
Number of Animals	Number of animals vocalizing
Geographic Location B	Place name of recording site (ex. Key West, FL)
Geographic Location C	Latitude and longitude of recording Start
Observation Time	Time of recording (local time)
Ship Name	Name of recording platform
Author of Recording	Recordist
Location of Original Tape	Physical storage location of tape
Hydrophone Depth	Depth of hydrophone (m)
Recording Conditions	Sea state, weather, wind, etc
Recording Gear	Equipment (ex. Pemtec tape recorder)
Signal Level	Signal level (db receiving or source)
Signal Type	Clicks, whistles, burst pulse, etc

**Appendix 2: Review the recordings and compile a list of digitized recordings by species, noting the geographic location, time of year and quality (SNR) for each recording.**

***Milestone:*** A list of digitized recordings arranged by species with a notation of SNR for each recording.

**Note:** Analog recordings not yet digitized are not included in this list.

Record Number	Species	Date of Recording	Location	Lat	Long	# CH	Dur.	S/N 1-10	Comments
57001	Ambient	1/21/1957	Lucas Shoal, Vineyard Sound, MA	N41	W071	1	08:08.5	6	Noise Calibration and ambient recording.
57004	Ambient	1/30/1957	Lucas Shoal, Vineyard Sound, MA	N41	W071	1	05:13.3	5	Noise Calibration and ambient recording. Fishing vessels nearby during Lucas Shoal recording. Engine noise loud.
57003	Ambient	1/30/1957	Lucas Shoal, Vineyard Sound, MA; Dogfish Bar, Vineyard Sound, MA	N41	W071	1	07:44.5	5	Noise Calibration and ambient recording at both locations. Recorded in 54 ft. of water at Dogfish Bar - a seal is onshore about 60 yds away. Fishing vessels nearby.
57005	Ambient	2/5/1957	Dogfish Bar, Vineyard Sound, MA	N41	W071	1	07:14.5	3	Noise Calibration and ambient recording. Poor recording.
57006	Ambient	2/5/1957	Lucas Shoal, Vineyard Sound, MA	N41	W071	1	07:35.0	5	Noise Calibration and ambient recording. Fishing vessels nearby. Engine noise loud.
57009	Ambient	2/25/1957	Dogfish Bar, Vineyard Sound, MA	N41	W071	1	08:07.0	6	Noise Calibration and ambient recording. Fishing vessel nearby. Good recording.
57007	Ambient	2/25/1957	Lucas Shoal, Vineyard Sound, MA	N41	W071	1	08:21.914	6	Noise Calibration and ambient recording. Good recording.
57008	Ambient	2/25/1957	Quicks Hole, Vineyard Sound, MA	N41	W071	1	07:53.8	5	Noise Calibration and ambient recording. Average recording.
57011	Ambient	4/15/1957	Dogfish Bar, Vineyard Sound, MA	N41	W071	1	06:33.2	3	Noise Calibration and ambient recording. Poor recording.

57012	Ambient	4/15/1957	Lucas Shoal, Vineyard Sound, MA	N41	W071	1	05:29.7	4	Noise Calibration and ambient recording. Poor recording.
57014	Ambient	4/16/1957	Dogfish Bar, Vineyard Sound, MA; Quick's Hole, Vineyard Sound, MA	N41	W071	1	08:00.4	6	Noise Calibration and ambient recording. Ok recording. Some phone bumping.
57013	Ambient	4/16/1957	Lucas Shoal, Vineyard Sound, MA	N41	W071	1	08:04.6	5	Noise Calibration and ambient recording. Ok recording. Much phone bumping.
57015	Ambient	4/16/1957	Quick's Hole, Vineyard Sound, MA	N41	W071	1	08:05.0	6	Ambient recording.
57016	Ambient	5/14/1957	Lucas Shoal, Vineyard Sound, MA	N41	W071	1	07:49.7	6	Noise Calibration and ambient recording. Ok recording.
57017	Ambient	5/14/1957	Quick's Hole, Vineyard Sound, MA	N41	W071	1	06:44.0	6	Noise Calibration and ambient recording. Ok recording.
60010	Ambient	11/1/1960	Atlantic Ocean	N38	W067	2	13:17.856	5	Nighttime ambient recording. Ch1 is data, ch2 is voice. Good recording.
57002	Ambient	1/21/1957, 1/29/1957, 1/30/1957	Lucas Shoal, Vineyard Sound, MA; Dogfish Bar, Vineyard Sound, MA	N41	W071	1	07:56.9	5	Noise Calibration and ambient recording.
52071	Ambient; Crustacea snapping shrimp	4/12/1952	St. Augustine, FL	N30	W081	1	32:15.1	2	Overloaded recording. High ambient of snapping shrimp. Few if any Tursiops sounds.
52072	Ambient; Crustacea snapping shrimp	4/13/1952	St. Augustine, FL	N30	W081	1	16:21.2	3	High ambient of snapping shrimp. Few if any Tursiops sounds. Generator is loud.
52038	Crustacea snapping shrimp, Ambient	4/13/1952	2 mi. E of St Georges, Bermuda	N32	W064	1	08:08.5	5	Ambient of ship creaks, water splashes, phone bumps. Snapping shrimp recording.
52025	Megaptera novaeangliae	4/13/1952	9 mi SE of St. David's Head, Bermuda	N32	W064	1	08:22.9	6	Faint moans. Low ambient. Good recording.
51019	Ambient	3/23/1951	12 miles off St. Augustine, FL	N30	W080	1	08:08.2	2	Overload of voice. Engine noise throughout recording. Tanker passed by. Cable squeaks
51038	Ambient	4/4/1951	Biscayne Bay, FL	N25	W080	1	16:11.4		no comments

52006	Ambient	4/9/1952	8 mi off south coast of Bermuda	N32	W064	1	08:09.3	5	Ambient recording. Good recording.
52009	Ambient	4/10/1952	S of Bermuda	N32	W064	1	08:10.4	5	Ambient recording. Good recording.
52074	Ambient	4/12/1952	Marine Studios, St. Augustine, FL	N30	W081	1	32:38.2	2	High ambient of tank noise
53012	Ambient	1/15/1953	Key West, FL	N24	W081	1	14:37.0	1	Voice and data overloaded.
53003	Ambient	6/4/1953	Nonamesset Island Pond, MA	N41	W070	2	16:07.4	2	overloaded voice, etc
53004	Ambient	6/4/1953	Nonamesset Island Pond, MA	N41	W070	2	09:19.8	1	overloaded voice, etc
53005	Ambient	6/4/1953	Nonamesset Island Pond, MA	N41	W070	2	10:11.3	1	overloaded voice, etc
53001	Ambient	6/11/1953	W. N. Atlantic	unknown	unknown	2	10:55.4	3	No voice; Echosounder?
54039	Ambient	1/12/1954	WNA	unknown	unknown	2	13:04.3	5	Scattering layer shots, ,63-68
55104	Ambient	3/10/1955	Great Harbor, Woods Hole, MA	N40	W070	1	07:56.4	5	Recording of shaft whine of the whaleboat Grampus
55105	Ambient	3/24/1955	Great Harbor, Woods Hole, MA	N40	W070	1	07:57.7	5	Recording of whale boat Grampus -- whine at 600 RPM
55108	Ambient	3/31/1955	Great Harbor, Woods Hole, MA	N40	W070	1	07:29.3	5	Recordings of whale boat Grampus - prop trials. Includes steamer to Vineyard
55110	Ambient	3/31/1955	Great Harbor, Woods Hole, MA	N40	W070	1	08:18.0	5	Recording during prop trials on whale boat Grampus
55028	Ambient	8/17/1955	Nonamesset Is. pond, MA	N40	W070	1	06:47.9	5	Ambient Reel 28
55096	Ambient	10/10/1955	Nonamesset Is. pond, MA	N40	W070	1	08:12.1	5	Hearing and echolocation observations. Ambient of water in pond. Reel 96
56067	Ambient	2/27/1956	Bellingshausen Sea	S66	W073	1	15:06.3	5	Cetacean-like sounds in the background. Ambient is high.
56020	Ambient	4/4/1956	Menemsha Bight, Vineyard Sound, MA	N41	W071	1	16:11.7	5	Ambient only. No rt whale sounds detected. Good recording of ambient.
56022	Ambient	4/5/1956	Menemsha Bight, Vineyard Sound, MA	N41	W071	1	16:20.8	5	Ambient only. No rt whale sounds detected. Good recording of ambient.
56023	Ambient	4/5/1956	Vineyard Sound, MA	N41	W071	1	16:19.7	5	Ambient only. No rt whale sounds detected. Good recording of ambient.
56062	Ambient	9/4/1956	Vineyard Sound, MA	N41	W071	1	03:37.2		Prop trials 18 x 14.5 after treatment. l477
56053	Ambient	12/19/1956	4-5 miles off Pasque Isle, Vineyard Sound, MA	N41	W071	1	08:23.4	2	High ambient. Very poor, much extraneous noise. Badly overloaded



56064	Ambient	12/26/1956	Dogfish Bar, Menemsha Bight, Vineyard Sound, MA	N41	W071	1	08:15.5	5	Ambient Station #2, Dogfish bar, 1st reel depth = 17m. Recording level very low.
56065	Ambient	12/26/1956	Dogfish Bar, Menemsha Bight, Vineyard Sound, MA	N41	W071	1	08:55.7	5	Station #2, 3rd reel. Dogfish bar - depth = 17m. Recording level very low.
56063	Ambient	12/26/1956	Lucas Shoal, Vineyard Sound, MA	N41	W071	1	08:23.7	5	90 ft. of water, Station #1. Ambient recording.
57030	Ambient	12/14/1957	Cape Porpoise, Maine	N43	W070	1	14:51.4	5	Reel 1. Low ambient. Low level recording. Some electrical noise in middle of recording.
57031	Ambient	12/15/1957	Cape Porpoise, Maine	N43	W070	1	02:36.8	5	Low ambient. Water splashes throughout recording.
58024	Ambient	6/3/1958	Fletcher's Neck Life Boat Station, ME	N43	W070	2	32:00.9	5	Some trawler noise in the 1st half.
58025	Ambient	6/3/1958	Fletcher's Neck Life Boat Station, ME	N43	W070	2	31:58.8	5	Quiet ambient
58026	Ambient	6/3/1958	Fletcher's Neck Life Boat Station, ME	N43	W070	2	32:14.0	5	Quiet ambient
58028	Ambient	6/3/1958	Fletcher's Neck Life Boat Station, ME	N43	W070	2	32:04.3	5	Quiet ambient
58027	Ambient	6/4/1958	Fletcher's Neck Life Boat Station, ME	N43	W070	2	32:18.5	5	Quiet ambient
58029	Ambient	6/4/1958	Fletcher's Neck Life Boat Station, ME	N43	W070	2	15:59.9	5	Ambient
58030	Ambient	6/4/1958	Fletcher's Neck Life Boat Station, ME	N43	W070	2	32:23.1	5	Ambient
58031	Ambient	6/4/1958	Fletcher's Neck Life Boat Station, ME	N43	W070	2	15:10.4	3	Ambient
58032	Ambient	6/5/1958	Fletcher's Neck Life Boat Station, ME	N43	W070	2	32:04.7	5	Ambient
58019	Ambient	10/9/1958	Saguenay River, Quebec, Canada	N48	W070	1	08:13.6	9	Quiet ambient

58033	Ambient	11/5/1958	Fletcher's Neck Life Boat Station, ME	N43	W070	2	32:12.5	5	Ambient
58034	Ambient	11/5/1958	Fletcher's Neck Life Boat Station, ME	N43	W070	2	29:28.5	5	Ambient
58035	Ambient	11/7/1958	Fletcher's Neck Life Boat Station, ME	N43	W070	2	27:44.6	5	Ambient
59041	Ambient	2/28/1959	Cape Porpoise, ME	N43	W070	2	31:19.412	5	Data on Ch2 and voice on Ch1. Low ambient. Good recording of ambient.
59042	Ambient	3/1/1959	Cape Porpoise, ME	N43	W070	2	31:45.580	5	Data on Ch2 and Ch1; voice also on Ch1. Moderate ambient of ship creaks and water splashes. Good recording of ambient.
59043	Ambient	3/2/1959	Cape Porpoise, ME	N43	W070	2	32:19.499	5	Data on Ch1 and Ch 2; voice also on Ch1. Moderate ambient of ship creaks and water splashes. Good recording of ambient
59044	Ambient	3/2/1959	Cape Porpoise, ME	N43	W070	2	26:43.698	5	Data on Ch1 and Ch 2; voice also on Ch1. Moderate ambient of ship creaks and water splashes. Good recording of ambient
59045	Ambient	3/3/1959	Cape Porpoise, ME	N43	W070	2	13:37.288	5	Data on Ch1 and Ch 2; voice also on Ch1. Moderate ambient of ship creaks and water splashes. Good recording of ambient
59031	Ambient	7/30/1959	Off PA near Hendrickson Canyon	N38	W073	2	15:58.3	5	Data on Ch1 and voice on Ch2. Low ambient. Good recording of ambient.
59035	Ambient	8/25/1959	Off Martha's Vineyard S of Nomans Island, MA	N41	W071	2	08:15.175	5	Voice on Ch1 and data on Ch 2. Moderate ambient of water splashes and ship engines from passing boats.
60001	Ambient	2/24/1960	WHOI dock, Woods Hole, MA	N41	W070	1	4:39.036	5	High ambient recording of ship engine noise from the steamships Nantucket and Islander.
60017	Ambient	10/24/1960	Mid-Atlantic Ocean	N36	W030	2	15:45.377	5	Ambient recording. Unidentified mammals in area. Phone bumps and water splashes. Ch1 signal; Ch2 voice
60018	Ambient	10/26/1960	Mid-Atlantic Ocean	N37	W038	2	17:26.091	4	Ambient recording. Ship engine noise. Ch1. cutting out on occasion. Unidentified mammals in area. Ch1 signal; Ch2 voice

60020	Ambient	10/29/1960	Mid-Atlantic Ocean	unknown	unknown	2	12:32.991	3	Ambient recording. Ch1 signal; Ch2 voice. Ship engine noise. Ch1 signal cutting out occasionally. Calibration towards end of recording.
60021	Ambient	11/2/1960	Mid-Atlantic Ocean	N36	W066	2	12:47.416	5	Ambient recording. Very quiet. Ch1 signal; Ch2 voice.
61001	Ambient	3/28/1961	Menemsha Bight, Martha's Vineyard, MA	N41	W070	1	06:28.7	8	Ambient; rt. whale in area
61002	Ambient	3/28/1961	Menemsha Bight, Martha's Vineyard, MA	N41	W070	1	08:00.2	9	Ambient; rt. whale in area
61003	Ambient	3/29/1961	Menemsha Bight, Martha's Vineyard, MA	N41	W070	1	08:11.2	8	Ambient; rt. whale in area
61034	Ambient	9/6/1961	Hadley's Harbor, Woods Hole, MA	N41	W071	1	08:07.1	5	Grampus boat noise as it passes phone.
61035	Ambient	9/6/1961	Hadley's Harbor, Woods Hole, MA	N41	W071	1	16:13.2	5	Grampus boat noise as it passes phone.
61036	Ambient	9/6/1961	Hadley's Harbor, Woods Hole, MA	N41	W071	1	08:19.2	5	Grampus boat noise as it passes phone.
61037	Ambient	9/11/1961	Hadley's Harbor, Woods Hole, MA	N42	W070	2	16:20.9	5	Grampus boat noise as it passes phone.
61038	Ambient	9/12/1961	Hadley's Harbor, Woods Hole, MA	N42	W070	2	16:06.4	5	Grampus boat noise as it passes phone.
61044	Ambient	9/12/1961	N end of Stellwagen Bank, MA	N42	W070	2	16:17.5	5	Low ambient.
61045	Ambient	9/12/1961	Stellwagen Basin, MA	N42	W070	2	16:39.6	5	Low ambient.
61046	Ambient	9/13/1961	Stellwagen Basin, MA	N42	W070	2	16:36.2	5	Low ambient.
61076	Ambient	9/29/1961	S of Georges Basin, MA	N42	W067	2	33:36.9	5	High ambient recording. Engine noise throughout.
61070	Ambient	9/29/1961	Stellwagen Bank, MA	N42	W069	2	31:51.2	5	Noise calibrations and low ambient
61071	Ambient	9/29/1961	Stellwagen Bank, MA	N42	W069	2	15:16.1	5	Noise calibrations and low ambient
61078	Ambient	10/1/1961	Cultivator Shoal, MA	N42	W069	2	33:37.8	5	Ambient. Engine noise throughout.
62021	Ambient	6/8/1962	Beluga weir, St. Lawrence River	N47	W065	2	05:30.3	5	Ambient.
62030	Ambient	9/13/1962	SE of Baccaro Bank S of Nova Scotia	N42	W067	2	16:18.5	5	Ambient with nearby ship engines and water noise.

64107	Ambient	12/5/1964	Pinchgut Bay, New Zealand	S45	E167	2	08:11.6	5	Ambient.
64108	Ambient	12/5/1964	Port William, Steward Island, New Zealand	S45	E167	2	08:15.5	5	Ambient.
64110	Ambient	12/8/1964	North of Wood Head, Doubtful Sound, New Zealand	S45	E167	2	08:13.5	5	Ambient.
64112	Ambient	12/8/1964	North of Wood Head, Doubtful Sound, New Zealand	S45	E167	2	08:13.2	5	Ambient.
64133	Ambient	12/17/1964	Cook Strait, New Zealand	S45	E167	2	08:31.5	5	Ambient recording. Snapping shrimp, phone bumps.
64134	Ambient	12/17/1964	Whakenui Bay, New Zealand	S45	E167	2	08:10.0	5	Ambient recording. Snapping shrimp, phone bumps.
64135	Ambient	12/19/1964	Island Bay, Wellington, New Zealand	S45	E167	2	08:13.2	5	Ambient recording. Snapping shrimp, phone bumps.
65013	Ambient	10/26/1965	North Pacific Ocean	N36	W122	2	8:25.0	5	Ambient recording.
57032	Ambient	//1957	Fletcher's Neck Lifeboat Station, Biddeford, ME	N43	W070	1	10:00.0	6	Reel 8. Ambient recording. Asterias nearby. Low ambient. Good recording.
60016	Ambient	10/19/1960 - 10/20/1960	Mid-Atlantic Ocean	N48	W014	2	17:00.000		
60019	Ambient	10/27/1960 - 10/28/1960	Mid-Atlantic Ocean	unknown	unknown	2	15:45.956	3	Ambient recording. Ship engine noise. Ch1. cutting out frequently. Ch1 signal; Ch2 voice
56021	Ambient	4/4/1956 - 4/5/1956	Menemsha Bight, Vineyard Sound, MA	N41	W071	1	16:02.3	5	Ambient only. No rt whale sounds detected. Good recording of ambient.
56024	Ambient	4/5/1956 - 4/6/1956	Vineyard Sound, MA	N41	W071	1	16:06.6	5	Ambient only. No rt whale sounds detected. Good recording of ambient.
56011	Ambient	4/5/1956	Marineland of the Pacific Aquarium, San Diego, CA	N33	W117	1	08:11.2	4	Gain is too high. Ambient is high. Ambient recording of a mix of species in the Marineland aquarium
61061	Ambient	9/14/1961	E of Cape Cod, MA	N42	W070	2	17:34.5	5	Ambient with ship engines and water noise.
53013	Ambient	6//1953	W.N.Atlantic	unknown	unknown	1	08:45.0	1	Be-63 engine noise
56029	Ambient Quicks Hole Whistler Buoy	4/12/1956	Quicks Hole Buoy, Ma	N41	W070	1	15:43.3	6	Ambient recording of buoy. Re-recording of 56012. Good recording.

62010	Ambient, Aves	6/4/1962	Weepecket Island, MA	N42	W070	2	08:08.5	5	Ambient
61052	Ambient, Balaenoptera physalus	9/13/1961	Stellwagen Bank, MA	N42	W070	2	32:27.2	9	Low ambient; some finback sounds. Good recording.
61054	Ambient, Balaenoptera physalus	9/13/1961	Stellwagen Bank, MA	N42	W070	2	32:39.3	5	Moderate ambient. Finback sounds. Ship engine noise.
61055	Ambient, Balaenoptera physalus	9/14/1961	Stellwagen Bank, MA	N42	W070	2	33:29.9	7	Moderate ambient. Finback sounds. Ship engine noise. good recording.
61067	Ambient, Balaenoptera physalus	9/28/1961	Stellwagen Bank, MA	N42	W069	2	31:53.7	10	Finbacks with low ambient. Good recording.
61068	Ambient, Balaenoptera physalus	9/29/1961	Stellwagen Bank, MA	N42	W069	2	31:51.8	5	Noise calibrations; low ambient and finback calls.
61073	Ambient, Balaenoptera physalus	9/30/1961	S of Georges Basin, MA	N42	W067	2	31:52.3	8	Noise calibrations. Low ambient. Low level finback calls. Good recording.
62003	Ambient, Balaenoptera physalus	5/10/1962	Nauset Buoy, MA	N41	W070	2	16:30.7	5	Ambient; distant rt. whale calls; fin calls.
70002	Ambient, Balaenoptera physalus	4/12/1970	Race Point, Provincetown, MA	N42	W070	4	16:03.0	5	Ambient only.
77003	Ambient, Balaenoptera physalus; Megaptera novaeangliae	4/20/1977	Stellwagen Bank	N42	W070	4	26:59.3	5	No obvious sounds. Low ambient in first 2/3 of recording. Last third has lots of ship engine noise.
59038	Ambient, Erignathus barbatus	//1959	Fletcher's Ice Island T-3 near Banks Island, Beaufort Sea	N73	W121	1	13:59.056	5	High ambient of wind and ship noise. Ok recording.
62001	Ambient, Eubalaena glacialis	1/26/1962	Cape Cod Bay, MA	N40	W070	1	03:36.5	5	Ambient
70009	Ambient, Eubalaena glacialis, Lagenorhynchus albirostris	4/13/1970	Race Point, Provincetown, MA	N42	W070	4	16:02.7	5	Ambient recording with much ship noise.

61031	Ambient, Fish, sensu lato, <i>Stenella frontalis</i> , <i>Tursiops truncatus</i>	8/31/1961	Marineland of Florida, St. Augustine, FL	N30	W081	1	32:40.6	9	Compilation tape with many examples of cetacean sounds
62002	Ambient, <i>Lagenorhynchus albirostris</i> , <i>Phocoena phocoena</i>	5/8/1962	Provincetown, MA	N41	W070	2	16:19.1	5	Ambient
52050	Ambient, <i>Megaptera novaeangliae</i>	4/14/1952	5.5 mi. SSE of St. David's Head, Bermuda	N32	W064	1	32:34.6	5	High ambient of ship creaks, water splashes, phone bumps.
61069	Ambient, <i>Megaptera novaeangliae</i>	9/29/1961	Stellwagen Bank, MA	N42	W069	2	31:49.1	5	Noise calibrations and low ambient
61033	Ambient, <i>Opsanus tau</i>	9/6/1961	Hadley's Harbor, Woods Hole, MA	N41	W071	1	08:04.8	9	Good recording.
59018	Ambient, <i>Physeter catodon</i>	7/26/1959 - 7/27/1959	Off VA near Wilmington Valley	N37	W073	2	16:14.4	6	Data on Ch1 and voice on Ch2. Moderate ambient caused by a nearby ship. Some <i>Physeter</i> clicking throughout recording.
64119	Ambient; Amphibia	12/9/1964	Bligh Sound, New Zealand	S45	E167	2	08:18.2	4	First half of tape has loud ambient of wind, water and ship noise. Second half is of frogs in a pond.
61040	Ambient; <i>Balaenoptera physalus</i>	9/12/1961	Stellwagen Basin, MA	N42	W070	2	16:16.4	9	Very low ambient. Finback sounds throughout recording. Good recording.
61047	Ambient; <i>Balaenoptera physalus</i>	9/13/1961	Stellwagen Basin, MA	N42	W070	2	16:39.3	9	Low ambient; some finback sounds. Good recording.
61063	Ambient; <i>Balaenoptera physalus</i>	9/27/1961	S of Stellwagen Bank, MA	N42	W070	2	32:59.8	10	Very low ambient recording; some balaenopterid calls. Good recording.
61063 copy	Ambient; <i>Balaenoptera physalus</i>	9/27/1961	S of Stellwagen Bank, MA	N42	W070	1	30:19.5	10	Very low ambient recording; some balaenopterid calls. Good recording.
59039	Ambient; <i>Balaenoptera physalus</i>	3/3/1959	Fletchers Neck Lifeboat Station, ME	N43	W070	2	30:19.132	6	Data on Ch1 and Ch 2. Good recording. Moderate ambient of water noise.
52070	Ambient; Crustacea snapping shrimp	4/12/1952	St. Augustine, FL	N30	W081	1	32:12.9	4	

51051	Ambient; Fish, sensu lato; Physeter catodon	11/12/1951	Edge of continental shelf 90 mi. S of Rhode Island	N41	W071	1	11:56.8	5	Recorded using a slowly descending hydrophone. Sounds id'd on tape as hammering fish. OK recording. Ship creaks throughout. Moderate level of ambient.
59016	Ambient; Grampus griseus	7/26/1959	Off VA near Phoenix Canyon	N38	W074	1	16:03.8	5	Data and voice on CH1. High ambient of electrical noise. Some Grampus in latter half of recording.
59017	Ambient; Grampus griseus	7/26/1959	Off VA near Phoenix Canyon	N38	W074	1	16:36.5	5	Data and voice on CH1. Low ambient. Some Grampus in very beginning of recording.
59015	Ambient; Grampus griseus; Tursiops truncatus	7/26/1959	Off VA near Phoenix Canyon	N38	W074	1	16:20.9	3	Data and voice on CH1. Recorder speed problems. High ambient of electrical noise. Poor recording.
64003	Ambient; Ice	4//1963	Point Barrow, AK	N71	W157	1	24:15.8	5	Arctic ambient ice and animal sounds Good recording.
55102	Ambient; Leptonychotes weddelli	1//1955	Antarctic Ocean	unknown	unknown	1	09:26.9		Dub (made 16 May 1956) of disk recorded by Hector Whaling Co.
53008	Ambient; Megaptera novaeangliae	4/30/1953	Sofar Station, Bermuda	N32	W064	1	32:59.8	3	Phone at 60 ft down; Voice overloaded and moans are overloaded; Whales are visible. Much reverb.
60024	Amphibia; Fish, sensu lato; Insecta	//1960	Various	unknown	unknown	1	24:02.884	7	Low ambient recording. Demonstration record that accompanied Proc. of the Symposium on Animal Sounds and Communications. Good recording.
58020	Anchoa choerostoma	8/7/1958 - 8/8/1958	Bailey's Bay, Bermuda	N32	W064	1	07:48.4	8	Good recording
64058	Aptenodytes forsteri	11/22/1964	Cape Crozier, Antarctica	S77	E170	1	16:05.4	8	Good recording. Quiet ambient.
64143	Aves	11/22/1964	Cape Crozier, Antarctica	S77	E169	1	16:20.2	9	Emperor penguins recorded at their colony. Quiet ambient. Good recording.
64131	Aves	12/15/1964	New Zealand	S45	E167	2	08:11.2	5	Quiet recording.
64132	Aves	12/16/1964	New Zealand	S45	E167	2	08:10.9	9	Quiet recording. Two types of calls recorded. Good recording.
60025	Aves	//1960	Various	unknown	unknown	1	18:04.921	7	Birds recorded by Borror, Lanyon, and Marler. Chickens recorded by Collias.
63031	Aves	//1963	Sweden	N60	E015	2	14:49.3	5	Boat engine noise and birds.
55114	Aves Whip- poor-will	6/6/1955	Concord, MA	unknown	unknown	1	01:08.1	8	Whip-poor-will. Good recording.
64002	Aves (Mockingbird)	//1963	Durham, North Carolina	N36	W079	1	08:13.6	7	Mockingbird. Good recording.

63022	B. musculus, B. physalus, Globicephala scammoni, M. novaeangliae, P. catodon	//1963	Various	unknown	unknown	1	09:34.6	8	Comp. tape made by the Smithsonian of USN ASW recordings based in SD, CA. Good recordings. Bit overloaded at times.
62033	B. physalus, D. leucas, Delphinus bairdii, Delphinus delphis, Eubalaena glacialis, Globicephala macrorhynchus, Globicephala melaena, Globicephala scammoni, Grampus griseus, Inia geoffrensis, Lagenorhynchus acutus, Lagenorhynchus albirostris, M. novaeangliae, P. catodon, Pseudorca crassidens, S. frontalis, S. coeruleoalba, T. truncatus	8//1962	Various	unknown	unknown	1	22:25.1	8	Muddy voice. Animal sounds are ok.



62034	B. physalus, D. leucas, Delphinus bairdii, Delphinus delphis, Eubalaena glacialis, Globicephala macrorhynchus, Globicephala melaena, Globicephala scammoni, Grampus griseus, Inia geoffrensis, Lagenorhynchus acutus, Lagenorhynchus albirostris, M. novaeangliae, P. catodon, Pseudorca crassidens, S. frontalis, S. coeruleoalba, T. truncatus		Various	unknown	unknown	1	10:19.9	8	Animal sounds only. No voice.
61079	Balaenoptera physalus	9/27/1961	Stellwagen Bank, MA	N42	W070	2	32:47.0	7	Good recording. Finback calls. Ship engine noise throughout.
61084	Balaenoptera physalus	11/20/1961	Halifax, N.S.	N44	W063	1	34:18.3	5	Ambient
61084 copy	Balaenoptera physalus	11/20/1961	Halifax, N.S.	N44	W063	1	34:18.3	5	Ambient
61085	Balaenoptera physalus	11/20/1961	Halifax, N.S.	N44	W063	1	34:36.0	7	Finback calls. good tape
62004	Balaenoptera physalus	5/10/1962	Nauset Buoy, MA	N41	W070	2	16:23.8	6	Finback calls. good tape
62005	Balaenoptera physalus	5/10/1962	Pollock Rip, Woods Hole, MA	N41	W071	2	16:16.2	5	Finback calls; high ambient
62006	Balaenoptera physalus	5/10/1962	Pollock Rip, Woods Hole, MA	N41	W071	2	16:22.5	7	Finback calls
62007	Balaenoptera physalus	5/10/1962	Pollock Rip, Woods Hole, MA	N41	W071	2	16:17.0	7	Finback calls
62009	Balaenoptera physalus	5/10/1962	Stellwagen Bank, MA	N42	W070	2	16:08.9	5	Ambient

61077	Balaenoptera physalus, Megaptera novaeangliae	10/1/1961	Cultivator Shoal, MA	N42	W070	2	33:36.7	5	High ambient. Engine noise throughout. Very low level finback sounds.
65018	Balaenoptera acutorostrata	10/29/1965	Monterey, CA	N36	W122	2	8:22.4	3	Minke id'd in area via visual sighting. High ambient.
65019	Balaenoptera acutorostrata	10/29/1965	Monterey, CA	N36	W122	2	8:18.7	3	Minke id'd in area via visual sighting. High ambient.
65020	Balaenoptera acutorostrata	10/29/1965	Monterey, CA	N36	W122	2	9:32.3	3	Minke id'd in area via visual sighting. High ambient.
65021	Balaenoptera acutorostrata	10/29/1965	Monterey, CA	N36	W122	2	8:20.3	3	Minke id'd in area via visual sighting. High ambient.
65022	Balaenoptera acutorostrata	10/29/1965	Monterey, CA	N36	W122	2	7:58.5	3	Minke id'd in area via visual sighting. High ambient.
65023	Balaenoptera acutorostrata	10/29/1965	Monterey, CA	N36	W122	1	8:10.9	3	Minke id'd in area via visual sighting. High ambient.
65026	Balaenoptera acutorostrata	10/29/1965	Monterey, CA	N36	W122	1	27:37.4	3	Minke id'd in area via visual sighting. High ambient.
65024	Balaenoptera acutorostrata; Delphinus delphis; Globicephala macrorhynchus; Lagenorhynchus obliquidens	10/29/1965	Off Catalina Island, Ca	N33	W113	2	31:24.0	3	High ambient.
65009	Balaenoptera acutorostrata; Hydrurga leptonyx; Orcinus orca	1/1/1965	McMurdo Sound, Antarctica	S77	E166	1	41:01.9	3	Commentary by Kooyman. Tape recording is overloaded.
64102	Balaenoptera acutorostrata; Leptonychotes weddelli	11/22/1964	Cape Crozier, Antarctica	S77	E169	2	08:20.0	8	Weddell seal is close by. Loud trills. Good recording. Minke sounds at end?
64103	Balaenoptera acutorostrata; Leptonychotes weddelli	11/22/1964	Cape Crozier, Antarctica	S77	E169	2	08:13.6	7	Weddell seal is close by. Loud trills. Good recording. Minke sounds at end.
64104	Balaenoptera acutorostrata; Leptonychotes weddelli	11/22/1964	Cape Crozier, Antarctica	S77	E169	2	08:11.3	7	Weddell seals a bit distant. Some minke sounds are present. Quiet ambient.

61065	Balaenoptera borealis, Balaenoptera physalus	9/27/1961	Stellwagen Bank, MA	N42	W070	2	31:57.0	10	Balaenopterids with low ambient. Good recording.
61066	Balaenoptera borealis, Balaenoptera physalus	9/27/1961	Stellwagen Bank, MA	N42	W069	2	31:57.3	10	Balaenopterids with low ambient. Good recording.
58022	Balaenoptera physalus	6/5/1958	Cape Porpoise, ME	N43	W070	2	17:46.8	4	Not much.
58002	Balaenoptera physalus	8/5/1958	WNA	N39	W072	2	16:15.2	7	Voice on 1; data on 1 and 2. Quiet recording. Low ambient.
60008	Balaenoptera physalus	12/20/1960	Gulf of Maine	N40	W070	2	32:24.095	6	Ambient is low. Ch2 is voice, Ch1 is data. Good 20 Hz sounds from fin whales.
60009	Balaenoptera physalus	12/20/1960	Gulf of Maine	N40	W070	2	12:21.696	6	Ambient is low. Ch2 is voice, Ch1 is data. Good sounds from fin whales in the beginning of recording.
61049	Balaenoptera physalus	9/13/1961	Stellwagen Bank, MA	N42	W070	2	27:41.5	7	Low ambient. Finback sounds
61050	Balaenoptera physalus	9/13/1961	Stellwagen Bank, MA	N42	W070	2	32:24.9	8	Low ambient; some finback sounds. Good recording.
61053	Balaenoptera physalus	9/13/1961	Stellwagen Bank, MA	N42	W070	2	32:32.0	9	Low ambient; some finback sounds. Good recording.
61048	Balaenoptera physalus	9/13/1961	Stellwagen Basin, MA	N42	W070	2	16:35.5	3	Low ambient. Finback sounds are very strong; overloaded recording.
61060	Balaenoptera physalus	9/14/1961	E of Cape Cod, MA	N42	W070	2	32:55.3	7	Low ambient. Finback sounds; phone bumps.
61056	Balaenoptera physalus	9/14/1961	Stellwagen Bank, MA	N42	W070	2	33:06.8	8	Low ambient. Finback sounds. Good recording.
61057	Balaenoptera physalus	9/14/1961	Stellwagen Bank, MA	N42	W070	2	33:28.9	5	Moderate ambient. Finback sounds and phone bumps
61058	Balaenoptera physalus	9/14/1961	Stellwagen Basin, MA	N42	W070	2	33:22.6	7	Low ambient. Finback sounds; phone bumps.
61059	Balaenoptera physalus	9/14/1961	Stellwagen Basin, MA	N42	W070	2	32:57.0	7	Low ambient. Finback sounds. Good recording.
61064	Balaenoptera physalus	9/27/1961	Stellwagen Bank, MA	N42	W070	2	32:59.7	10	Finbacks with low ambient. Good recording.
61096	Balaenoptera physalus	11/20/1961	Halifax, N.S.	N44	W063	1	34:20.349	7	Good recording. Low ambient. 40 Hz fin whale calls
61097	Balaenoptera physalus	11/20/1961	Halifax, N.S.	N44	W063	1	7:54.993	7	Good recording. Low ambient. 20 Hz fin whale calls present.
61098	Balaenoptera physalus	11/20/1961	Halifax, N.S.	N44	W063	1	33:31.480	7	Low ambient.
63023	Balaenoptera physalus	5/27/1963	E. Brewster, MA	N40	W070	2	08:26.7	3	Blows; water noise; phone bumps; small engine noise.

63024	Balaenoptera physalus	5/27/1963	E. Brewster, MA	N40	W070	2	08:25.3	3	Blows; water noise; phone bumps; small engine noise.
63025	Balaenoptera physalus	5/27/1963	E. Brewster, MA	N40	W070	2	07:21.4	3	Blows; water noise; phone bumps; small engine noise.
77001	Balaenoptera physalus	4/20/1977	Stellwagen Bank	N42	W070	4	27:15.2	6	Some distant sounds. Low ambient. Quiet recording.
77002	Balaenoptera physalus	4/20/1977	Stellwagen Bank	N42	W070	4	26:26.5	6	Some distant sounds. Low ambient. Quiet recording.
77012	Balaenoptera physalus	5/17/1977	Off Race Point, Provincetown, MA	N41	W071	4	27:13.8	7	Ambient is not too high. A few good 40 Hz finback calls.
77014	Balaenoptera physalus	5/17/1977	Stellwagen Bank	N42	W070	4	22:42.8	7	Ambient is not too high. A few good 40 Hz finback calls.
77015	Balaenoptera physalus	5/31/1977	Stellwagen Bank	N42	W070	4	26:36.0	6	Ambient a bit high due to engine noise and phone bumps. A few good 40 Hz finback calls.
81001	Balaenoptera physalus	4/21/1981	SW corner Stellwagen bank, MA	N42	W070	3	26:30.2	6	Hydrodynamic sounds of fin whale feeding.
81002	Balaenoptera physalus	5/8/1981	SW corner Stellwagen bank, off MA	N42	W070	3	26:36.7	7	Ambient is not too high. A few good 40 Hz finback calls.
59046	Balaenoptera physalus	2/28/1959	Fletchers Neck Lifeboat Station, ME	N43	W070	2	31:47.167	6	Data on Ch1 and Ch 2; voice also on Ch1. Moderate ambient of ship creaks and water splashes. Good recording of ambient and finbacks.
59040	Balaenoptera physalus	12/17/1959	Nantucket, MA	N41	W070	2	31:40.000	6	Data on Ch1 and voice on Ch2. Low ambient. Good recording.
77013	Balaenoptera physalus, Ambient	5/17/1977	Near Race Point buoy, Provincetown, MA	N41	W071	4	23:26.1	5	Ambient is not too high. Some engine noise and phone bumps. No obvious whale calls
77011	Balaenoptera physalus, Ambient	5/17/1977	Off Race Point, Provincetown, MA	N41	W071	4	26:50.7	5	Ambient a bit high due to engine noise and phone bumps. No obvious whale calls
70003	Balaenoptera physalus, Eubalaena glacialis	4/13/1970	Off Race Point, Provincetown, MA	N42	W070	4	09:04.8	5	Some 20 Hz. Last half has rt. whale sounds. Ambient is high.
70005	Balaenoptera physalus, Eubalaena glacialis	4/13/1970	Race Point, Provincetown, MA	N42	W070	4	15:58.0	4	Rt whale moans sparse and faint. High ambient. CH 2 is best.

70010	Balaenoptera physalus, Eubalaena glacialis	4/13/1970	Race Point, Provincetown, MA	N42	W070	4	15:57.8	5	Ambient recording with much ship noise.
70013	Balaenoptera physalus, Eubalaena glacialis, Lagenorhynchus albirostris	4/13/1970	Race Point, Cape Cod Bay, MA	N42	W070	4	16:18.4	3	Very noisy ambient from ship engine noise. Fins about a mile distant. Ch 2 is best.
77009	Balaenoptera physalus, Lagenorhynchus acutus	5/5/1977	Cape Cod Bay, MA	N41	W071	4	25:43.8	7	Good Lag. whistles and clicks in the beginning of tape. 20 Hz and 40 Hz fin whale calls. Good tape.
77010	Balaenoptera physalus, Lagenorhynchus acutus	5/5/1977; 5/17/1977	Cape Cod Bay, MA	N41	W071	4	26:39.6	6	Ambient a bit high due to engine noise and phone bumps. Distant finback sounds. Some Lag whistles.
62008	Balaenoptera physalus, Lagenorhynchus albirostris	5/10/1962	Stellwagen Bank, MA	N41	W070	2	16:20.8	5	Ambient
77007	Balaenoptera physalus, Megaptera novaeangliae	5/5/1977	Cape Cod Bay, MA	N41	W071	4	24:08.8	8	Very good recording of 40 Hz fin whale calls. Low ambient.
77008	Balaenoptera physalus, Megaptera novaeangliae	5/5/1977	Cape Cod Bay, MA	N41	W071	4	27:00.0	7	Very good recording of 40 Hz fin whale calls. Low ambient.
81003	Balaenoptera physalus, Megaptera novaeangliae	5/8/1981	SW corner Stellwagen bank, off MA	N42	W070	3	26:51.6	5	Ambient is not too high. Some engine noise and phone bumps. No obvious whale calls
61051	Balaenoptera physalus; Megaptera novaeangliae	9/13/1961	Stellwagen Bank, MA	N42	W070	2	32:28.0	9	Low ambient; some finback sounds. Good recording.
61039	Balaenoptera physalus	9/12/1961	Stellwagen Basin, MA	N42	W070	2	16:13.9	9	Very low ambient. Finback sounds in beginning and end of recording. Good recording.
61030	Balaenoptera physalus, Delphinus delphis	8/11/1961	Off PA near Nantucket Canyon	N40	W071	2	32:26.7	5	Bear engine noise consistently throughout recording. Ambient only. Whales seem silent.
51047	Calibration	4/23/1951	Off MA	N41	W070	1	08:01.3	5	Calibration

51048	Calibration	4/24/1951	Off MA	N41	W070	1	08:03.4	5	Calibration
51049	Calibration	7/18/1951	Off MA	N41	W070	1	24:07.4	5	Calibration
51050	Calibration	10/24/1951	Off MA	N41	W070	1	06:47.3	5	Calibration
53010	Calibration	7/7/1953	Woods Hole, MA	N41	W070	2	08:19.0	2	Calibration
55027	Calibration	8/17/1955	Nonamesset Is. pond, MA	N40	W070	1	08:13.6	5	Hearing and echolocation observations. Calibration of recording gear. Reel 27
55103	Calibration	11/17/1955	MA	N40	W070	1	06:43.1	5	Calibration of recorder
55098	Calibration	11/27/1955	Nonamesset Is. pond, MA	N40	W070	1	04:55.8	5	Hearing and echolocation observations. No vocalization from the animal. Calibration of equipment . Reel 98
55099	Calibration	11/28/1955	Nonamesset Is. pond, MA	N40	W070	1	07:57.7	5	Hearing and echolocation observations. No vocalization from the animal. Calibration of equipment . Reel 99
56056	Calibration	9/6/1956	Woods Hole, MA	N41	W071	1	08:10.0	5	Calibration of 30 ips Magnecoreder tape recorder with experimental equalizer.
56057	Calibration	9/6/1956	Woods Hole, MA	N41	W071	1	08:25.0	5	Sine wave calibration of magnemite recorder.
56055	Calibration	10/14/1956	Woods Hole, MA	N41	W071	1	08:05.8	5	Calibration of recorder
56058	Calibration	10/18/1956	Woods Hole, MA	N41	W071	1	04:53.8	5	Sine wave calibration of magnecorder
56059	Calibration	10/19/1956	Woods Hole, MA	N41	W071	1	07:25.0	5	Overall calibration of Magnecorder. Chace fone direct to first grid.
56060	Calibration	10/29/1956	Woods Hole, MA	N41	W071	1	08:06.8	5	Magnecorder calibration. Chace fone, high level.
64077	Calibration	11/17/1964	McMurdo, Antarctica	S77	E166	2	16:24.0	5	Calibration tape.
51045	Calibration	4//1951	Off MA	N41	W070	1	08:58.0	5	White noise Calibration; voice
51046	Calibration	4//1951	Off MA	N41	W070	1	10:04.1	5	Calibration; voice
54016	Calibration	1/18/1954	Marine Studios, St. Augustine, FL	N30	W080	1	15:02.0	2	Calibration using human voice.
55115	Calibration	9/29/1955	Nonamesset Is. pond, MA	N40	W070	1	16:17.2	5	Frequency calibration for the 60 ips recordings on Ampex
55029	Calibration, Tursiops truncatus	8/18/1955 - 8/19/1955	Nonamesset Is. pond, MA	N40	W070	1	07:45.7	8	Hearing and echolocation observations. Calibration of recording gear during first half of tape. Second half is recording of dolphin while it is feeding. Reel 29
55048	Calibration, Tursiops truncatus	8/7/1955; 8/24/1955	Nonamesset Is. pond, MA	N40	W070	1	05:54.8	6	Hearing and echolocation observations. Calibration. Ok recording of whistles, clicks and click bursts. Overloaded at last third of tape. Ambient of water splashes and equipment banging. Reel 48
55139	Calibration; Ambient	10/10/1955	Nonamesset Is. pond, MA	N40	W070	1	16:56.4	5	Noise Calibration and ambient recording.

55140	Calibration; Ambient	10/10/1955	Nonamesset Is. pond, MA	N40	W070	1	15:38.2	5	Noise Calibration and ambient recording.
56030	Calibration; Ambient	7/7/1956	WHOI, Woods Hole, MA	N41	W071	1	08:25.9	5	Magnemite tape recorder calibration.
60013	Chimes	3/12/1960	Lerner Marine Lab, FL	unknown	unknown	1	6:00.000	5	Recording of auto horns and chimes that Kritzler and Wood played to their sharks.
58039	Chiroptera	//1958	unknown	unknown	unknown	1	05:51.0	10	
60022	Chiroptera	//1960	Germany	N50	E010	1	13:53.800	5	Recording of echolocation. Recorded by Walter Nicolai.
60023	Chiroptera	//1960	Germany	N50	E010	1	14:28.964	5	Recording of heartbeats. Recorded by Walter Nicolai.
64016	Crustacea	7/15/1964	Fort Bay, Long Island, NY	N41	W074	1	09:00.0	5	Spider crab noises. Phone bumps throughout.
55112	Crustacea Green crabs	7/26/1955	Nonamesset Is. pond, MA	N40	W070	1	05:58.5	5	Green crabs
52066	Crustacea snapping shrimp, Tursiops truncatus	4/8/1952	St. Augustine, FL	N30	W081	1	16:04.3	3	Overloaded recording.
61032	Crustacea, Fish, sensu lato, Tursiops truncatus	9/1/1961	Naval Ordinance Lab recording near Beaufort, NC	N42	W087	1	22:38.7	9	Compilation tape with many examples of cetacean sounds
63006	Cystophora cristata	1/22/1963	N. Y. Aquarium, N. Y.	unknown	unknown	2	15:13.0	5	Quiet
63008	Cystophora cristata	1/22/1963	N. Y. Aquarium, N. Y.	unknown	unknown	2	16:02.8	5	Quiet
63004	Cystophora cristata, Delphinapterus leucas	1/21/1963	N. Y. Aquarium, N. Y.	unknown	unknown	2	15:31.5	5	Water splashing throughout recording. Pump noise.
49001	Delphinapterus leucas	7/1/1949	Saguenay River, Quebec, Canada	N48	W070	1	09:59.6	8	Low ambient recording. Very good recording. Delphinapterus clicks and whistles.
49003	Delphinapterus leucas	7/20/1949	Saguenay River, Quebec, Canada	N48	W070	1	1:07:26.2	3	High level of ambient noise. Poor recording.
49004	Delphinapterus leucas	7/22/1949	Saguenay River, Quebec, Canada	N48	W070	1	1:04:59.8	6	High level of ambient noise in first half of recording. Second half much lower level of ambient. Good recording during second half of tape.
49005	Delphinapterus leucas	7/25/1949	Saguenay River, Quebec, Canada	N48	W070	1	1:07:19.1	7	Low level of ambient noise. Good recording.
49006	Delphinapterus leucas	7/25/1949	Saguenay River, Quebec, Canada	N48	W070	1	1:04:56.3	5	Low level of ambient noise. Distant sounds from beluga. Mostly ambient.

49007	Delphinapterus leucas	7/26/1949	Saguenay River, Quebec, Canada	N48	W070	1	1:05:17.4	8	Low level of ambient noise. Good clicks and click series from beluga. Good recording.
49008	Delphinapterus leucas	7/26/1949	Saguenay River, Quebec, Canada	N48	W070	1	1:05:10.2	8	Low level of ambient noise. Good calls and clicks from beluga. Good recording.
62020	Delphinapterus leucas	6/8/1962	Anse a la Boule, Canada	N48	W070	2	08:16.0	4	Cable flutter and helio engine noise. Few pulsed click series.
62012	Delphinapterus leucas	6/8/1962	Anse St. Etienne, Canada	N48	W070	2	08:08.1	5	Beluga pulsed clicks. Phone bumping noise at beginning. Helio noise throughout.
62013	Delphinapterus leucas	6/8/1962	Anse St. Etienne, Canada	N48	W070	2	08:03.6	6	Some pulsed clicks. Water and phone bumping. Helio engine running.
62014	Delphinapterus leucas	6/8/1962	Anse St. Etienne, Canada	N48	W069	2	08:18.8	4	Some pulsed clicks. Water and phone bumping. Helio engine running. Bad flutter.
62015	Delphinapterus leucas	6/8/1962	Anse St. Etienne, Canada	N48	W069	2	08:01.6	1	Helio engine running. Bad flutter. No clicks.
62016	Delphinapterus leucas	6/8/1962	Anse St. Etienne, Canada	N48	W070	2	08:07.9	1	Helio engine running. Bad flutter. No clicks.
62017	Delphinapterus leucas	6/8/1962	Baie Ste. Catherine, Canada	N48	W070	2	08:26.4	4	Helio engine running. Bad flutter in beginning; middle of tape is quieter with only water noise. Some pulsed clicks in middle of recording.
62018	Delphinapterus leucas	6/8/1962	Baie Ste. Catherine, Canada	N48	W069	2	08:16.1	6	Some pulsed clicks and squeals. Water noise. Ok recording.
62019	Delphinapterus leucas	6/8/1962	Baie Ste. Catherine, Canada	N48	W069	2	08:19.2	7	Lots of pulsed click series and squeals. Good tape. Some cable flutter and water noise.
62026	Delphinapterus leucas	6/8/1962	Saguenay River, Qubec, Canada	N48	W070	1	02:34.7	5	Edited copies of 62-23, 62-22, 62-19. First part overloaded.
62011	Delphinapterus leucas	6/8/1962	St. Lawrence River, Canada	N47	W065	2	08:24.6	7	Beluga pulsed clicks. Noise at beginning but quiets nicely. Good recording.
62022	Delphinapterus leucas	6/9/1962	Saguenay River, Qubec, Canada	N48	W070	2	08:14.8	4	Bad cable flutter and helio engine noise. Some pulsed click series and squeals.
62023	Delphinapterus leucas	6/9/1962	Saguenay River, Qubec, Canada	N48	W070	2	08:15.9	7	Bad cable flutter. Good pulsed click series and squeals.
62024	Delphinapterus leucas	6/9/1962	Saguenay River, Qubec, Canada	N48	W070	2	07:06.6	6	Bad cable flutter. Pulsed click series and squeals overloaded at times.
62027	Delphinapterus leucas	6/19/1962	New York	unknown	unknown	2	03:06.4	1	Edited copies. Recorder troubles. Overloaded squeals. Bad tape.
63012	Delphinapterus leucas	1/22/1963	N. Y. Aquarium, N. Y.	unknown	unknown	2	16:05.5	4	Pump noise is quite loud.



63013	Delphinapterus leucas	1/22/1963	N. Y. Aquarium, N. Y.	unknown	unknown	2	16:07.1	1	Pump noise is quite loud.
63014	Delphinapterus leucas	1/22/1963	N. Y. Aquarium, N. Y.	unknown	unknown	2	16:07.6	1	Pump noise is quite loud.
63015	Delphinapterus leucas	1/22/1963	N. Y. Aquarium, N. Y.	unknown	unknown	2	16:05.7	1	Pump noise is quite loud.
64145	Delphinapterus leucas	9/28/1964	NY	unknown	unknown	1	16:11.7	5	Pump noise is quite loud in the beginning of the tape. Few sounds?
64146	Delphinapterus leucas	9/28/1964	NY	unknown	unknown	1	16:22.8	5	Few sounds. Quiet recording. Some click bursts.
65030	Delphinapterus leucas	5/9/1965	Ile aux Coudres, Quebec, Canada	unknown	unknown	1	32:57.8	6	7 belugas in freshwater pond. Low ambient. A few good sounds. Good recording.
65031	Delphinapterus leucas	5/11/1965	NY Aquarium, NY	unknown	unknown	1	33:08.6	4	High ambient.
65033	Delphinapterus leucas	5/30/1965	NY Aquarium, NY	unknown	unknown	1	32:28.3	4	Belugas in holding tanks. Water noise and reverb noise from tank. Modest ambient.
70020	Delphinapterus leucas	//1970	Kuichak, AK	N59	W157	1	24:41.1	8	Ambient is low. Some phone bumps. Very good recording of squeals.
65032	Delphinapterus leucas	5/12-13/1965	NY Aquarium, NY	unknown	unknown	1	33:09.8	4	Belugas in holding tanks. Water noise and reverb noise from tank. Modest ambient.
49022	Delphinapterus leucas; Globicephala macrorchynchus	//1949	Saguenay River, Quebec, Canada; off St. Augustine, FL	N48; N30	W069; W081	1	58:39.7	2	High ambient of engine noise. Overloaded tape.
59047	Delphinidae	4/20/1959	Off VA	N36	W073	2	16:13.324	6	Data on Ch1 and voice on Ch2. Moderate ambient. of ship noise, water splashes and hydrophone cable noise. Faint Delphinid whistles. Good recording.
59048	Delphinidae	4/20/1959	Off VA	N36	W073	2	16:19.401	6	Data on Ch1 and voice on Ch2. Moderate ambient. of ship noise, water splashes and hydrophone cable noise. A few faint Delphinid whistles at end of recording. OK recording.
59049	Delphinidae	4/20/1959	Off VA	N36	W073	2	16:42.785	6	Data on Ch1 and voice on Ch2. Moderate ambient. of ship noise, water splashes and hydrophone cable noise. Many Delphinid whistles and clicks. Good recording.
61088	Delphinidae	4/20/1961	Moreton Bay, Australia	S27	E153	1	33:08.333	5	High ambient of ship engine noise. Some porpoise sounds throughout recording.

64111	Delphinidae	12/8/1964	Cove North of Wood Head, Doubtful Sound, New Zealand	S45	E167	2	08:11.3	6	Delphinid clicks. Phone sloshing in water.
64127	Delphinidae	12/13/1964	4 miles east of Oaro, New Zealand	S45	E167	2	08:12.8	6	Badly overloaded from clicks and click bursts. Animals very close to phone.
64129	Delphinidae	12/13/1964	4 miles east of Oaro, New Zealand	S45	E167	2	08:11.8	6	Mixed species recording. Overloaded at times from very close clicks and click bursts.
64128	Delphinidae	12/13/1964	4 miles off of Oaro, New Zealand	S45	E167	2	08:19.7	6	Overloaded from clicks and click bursts. Animals very close to phone.
64120	Delphinidae	12/13/1964	5 miles southeast of Kaikoura Peninsula, New Zealand	S45	E167	2	08:09.5	4	Phone towed behind ship. Some delphinid clicks. Overloaded recording of clicks and a few whistles.
64121	Delphinidae	12/13/1964	5 miles southeast of Kaikoura Peninsula, New Zealand	S45	E167	2	08:12.6	6	Phone in 25 ft. of water. Some delphinid clicks. Overloaded at times. Recording of clicks and pulsed click bursts. Presumed Lagenorhynchus.
64125	Delphinidae	12/13/1964	5 miles southeast of Kaikoura, New Zealand	S45	E167	2	08:14.1	8	Very good recording of clicks and click bursts. Some water splashes and phone bumps. Some overloading in second half of recording. Animals are close by.
52008	Delphinidae, Megaptera novaeangliae, Physeter catodon	4/9/1952	11 mi SE of St. David's Head, Bermuda	N32	W064	1	08:10.0	4	Delphinid whistles, sperm whale clicks in the beginning. Ambient low in first half of recording. Some ship noise from engine and rudder. Fair recording.
61089	Delphinidae; Ambient	4/19/1961	Moreton Bay, Australia	S27	E153	1	32:39.633	4	High ambient of engine noise, water splashes and hydrophone bumps. Very few squeals from porpoise.
61090	Delphinidae; Ambient	4/20/1961	Moreton Bay, Australia	S27	E153	1	32:31.627	3	High ambient of engine noise, water splashes and hydrophone bumps. Very few squeals from porpoise.
49009	Delphinidae; Delphinus delphis	7/28/1949	WNA.; Woods Hole, MA	N40	W070	1	22:49.8	5	Brief recording in beginning of tape from Corsair. Remaining recording is of a larynx experiment on a dead dolphin at WHOI. Moderate ambient noise during Corsair recording. OK recording.

61018	Delphinidae; Globicephala melaena; Grampus griseus; Ambient	6/7/1961	Near New England Seamounts	N38	W064	1	16:27.4	2	Overloaded data. Poor recording.
60006	Delphinus	10/24/1960	Atlantic Ocean	N36	W030	2	11:20.959	5	Ch1 is intermittent. Ch2 is best. High ambient.
58036	Delphinus bairdii	11/19/1958	Catalina I., CA	N33	W118	1	02:14.1	5	Clicks
58021	Delphinus bairdii, Globicephala scammoni	3/18/1958 - 3/19/1958	San Pedro Channel, Santa Catalina I., CA	N33	W118	1	16:10.4	8	Quiet. Pulsed clicks.
58021B	Delphinus bairdii, Globicephala scammoni	3/18/1958 - 3/19/1958	San Pedro Channel, Santa Catalina I., CA	N33	W118	1	00:14.1	5	Windy. Whistles and clicks.
57025	Delphinus delphis	7/23/1957	Mid-Atlantic coast of US	N49	W067	2	07:30.8	6	High ambient of ship noise. Lots of clicks. Delphinus nearby.
57026	Delphinus delphis	7/23/1957	Mid-Atlantic coast of US	N49	W067	2	16:00.0	8	Ch 2 data; ch 1 voice. Good recording. Low ambient.
57027	Delphinus delphis	7/23/1957	Mid-Atlantic coast of US	N49	W067	2	04:13.3	8	Ch 2 data; ch 1 voice. Good recording. Low ambient.
58013	Delphinus delphis	8/12/1958	WNA	N40	W071	2	08:39.2	10	Voice on 1 and data on 2. Good recording. Water splashes. Clicks, whistles.
58014	Delphinus delphis	8/12/1958	WNA	N40	W071	2	16:03.6	10	Voice on 1 and data on 2. Good recording. Clicks, whistles.
63021	Delphinus delphis, Globicephala, Grampus griseus, Phocoena phocoena, Tursiops truncatus	//1963	Mediterranean	unknown	unknown	1	09:55.5	8	Water noise; good recordings. Alarm sounds of Tursiops included.
56032	Delphinus delphis; Megaptera novaeangliae	9/20/1956	Gulf of Maine	unknown	unknown	1	08:00.1	5	Mostly voice. Ambient is low. Maybe a humpback moan.
56031	Delphinus delphis; Megaptera novaeangliae	9/19/1956 - 9/20/1956	Gulf of Maine	unknown	unknown	1	08:05.0	5	Magnemite tape recorder calibration. Ambient is low. Whales in area near ship.

70022	Erignathus barbatus	5/13/1970	W beach Gambell, St. Lawrence I., AK	N63	W171	1	08:08.7	5	High ambient of ice, waves and wind. Trills in background.
70023	Erignathus barbatus	5/19/1970 - 5/20/1970	7 mi. NE of Gambell, St. Lawrence I., AK	N63	W171	1	08:03.8	7	Low ambient. Good recording.
70024	Erignathus barbatus, Odobenus rosmarus	5/20/1970	Gambell, St. Lawrence I., AK	N63	W171	1	08:05.5	7	Low ambient. Good recording.
65001	Eschrichtius robustus	1/20/1965	Pt Hueneme off Santa Cruz Is., CA	N34	W119	2	8:11.7	5	Nearby ship engine noise. Ambient of water slaps, etc.
70004	Eubalaena glacialis	4/13/1970	Race Point, Cape Cod Bay, MA	N42	W070	4	15:34.9	4	Rt whale moans sparse and faint. High ambient. CH 2 is best.
56068	Eubalaena glacialis	4/3/1956	Menemsha Bight, Vineyard Sound, MA	N41	W071	1	08:55.4	4	Eubalaena selections: 1) With 740 ~ dip filter; 2) Without filter. Selections of most of the high level sounds. Overloaded.
56013	Eubalaena glacialis	4/3/1956	W end of Dogfish Bar, Vineyard Sound, MA	N41	W071	1	16:23.6	7	Ambient is low. Very good recording with a few moans. ID'd as humpbacks on tape.
56014	Eubalaena glacialis	4/3/1956	W end of Dogfish Bar, Vineyard Sound, MA	N41	W071	1	16:18.7	8	Good groans, the rest low level. Ship generator and engine noise occurs consistently at 60 Hz. Very good recording. Low ambient.
56015	Eubalaena glacialis	4/3/1956	W end of Dogfish Bar, Vineyard Sound, MA	N41	W071	1	16:16.7	8	Good groans, the rest low level. Ship generator and engine noise occurs consistently at 60 Hz. Very good recording. Low ambient.
56016	Eubalaena glacialis	4/3/1956	W end of Dogfish Bar, Vineyard Sound, MA	N41	W071	1	16:07.5	8	Good groans, the rest low level. Ship generator and engine noise occurs consistently at 60 Hz. Very good recording. Low ambient.
56017	Eubalaena glacialis	4/3/1956	W end of Dogfish Bar, Vineyard Sound, MA	N41	W071	1	15:54.3	8	Good groans, the rest low level. Ship generator and engine noise occurs consistently at 60 Hz. Very good recording. Low ambient.
56018	Eubalaena glacialis	4/3/1956	W end of Dogfish Bar, Vineyard Sound, MA	N41	W071	1	10:07.3	8	Good groans, the rest low level. Ship generator and engine noise occurs consistently at 60 Hz. Very good recording. Low ambient.

56019	Eubalaena glacialis	4/4/1956	Menemsha Bight, Vineyard Sound, MA	N41	W071	1	16:03.6	6	Ambient is high toward end of tape. One groan. Ship noise is a bit loud.
56025	Eubalaena glacialis	4/6/1956	Vineyard Sound, MA	N41	W071	1	16:05.6	7	Low ambient. Some moans. Good recording.
56026	Eubalaena glacialis	4/6/1956	Vineyard Sound, MA	N41	W071	1	16:23.9	8	Low ambient. Some moans. Good recording.
56027	Eubalaena glacialis	4/6/1956	Vineyard Sound, MA	N41	W071	1	15:17.9	7	Low ambient. Some moans. Good recording.
56028	Eubalaena glacialis	4/6/1956	Vineyard Sound, MA	N41	W071	1	08:01.5	7	Low ambient. Some moans. Good recording.
59001	Eubalaena glacialis	4/14/1959	5 miles off Manomet, Cape Cod Bay, MA	N41	W070	2	16:08.8	6	Data on Ch1, voice on Ch2. Recorder problems on Ch 2-speed is variable. Moderate ambient. Ambient of ship engine noise. Some good rt. whale moans scattered throughout recording. Ok recording.
59002	Eubalaena glacialis	4/14/1959	5 miles off Manomet, Cape Cod Bay, MA	N41	W070	2	16:31.8	5	Data on Ch1, voice on Ch2. Recorder problems on Ch 2-speed is variable. Moderate ambient. Ambient of ship engine noise. Draggers in area. No moans detected. Ambient recording.
59004	Eubalaena glacialis	4/15/1959	3.5 mi. ENE of Cape Cod Canal, MA	N41	W070	2	16:16.5	9	Data on Ch1, voice on Ch2. Recorder problems on Ch 2-speed is variable. Very low ambient. Some excellent rt. whale moans throughout recording. Very good recording.
59005	Eubalaena glacialis	4/15/1959	3.5 mi. ENE of Cape Cod Canal, MA	N41	W070	2	16:12.3	8	Data on Ch1, voice on Ch2. .Very low ambient. Some excellent rt. whale moans throughout recording. Much surface activity. Very good recording.
59006	Eubalaena glacialis	4/15/1959	3.5 mi. ENE of Cape Cod Canal, MA	N41	W070	2	07:45.3	7	Data on Ch1, voice on Ch2. .Very low ambient. Some rt. whale moans in beginning of recording. Much surface activity. Ok recording.
59007	Eubalaena glacialis	4/15/1959	3.5 mi. ENE of Cape Cod Canal, MA	N41	W070	1	07:49.6	5	Data and voice on Ch1. Hgh ambient. of ship engine noise. Some rt. whale moans.
59003	Eubalaena glacialis	4/15/1959	4-5 mi off Sandwich, Cape Cod Bay, MA	N41	W070	2	16:09.0	7	Data on Ch1, voice on Ch2. Recorder problems on Ch2. Ch 2 speed is variable. Moderate ambient. Ambient of ship engine noise. Tanker nearby. Rt whales are very active at surface. Some good rt. whale moans scattered throughout recording. Good recording.

65029	Eubalaena glacialis	12/28/1965	NW Atlantic Ocean	unknown	unknown	2	37:25.1	3	High ambient. Mostly ship engine noise.
70006	Eubalaena glacialis	4/13/1970	Race Point, Cape Cod Bay, MA	N42	W070	4	16:00.4	4	Rt whale moans sparse and faint. High ambient. CH 2 is best. Loud ship.
70007	Eubalaena glacialis	4/13/1970	Race Point, Cape Cod Bay, MA	N42	W070	4	16:04.0	4	Rt whale moans sparse and faint. High ambient. CH 2 is best. Loud ship.
70008	Eubalaena glacialis	4/13/1970	Race Point, Cape Cod Bay, MA	N42	W070	4	16:07.2	5	Sparse rt whale sounds. Ambient recording.
70016	Eubalaena glacialis	4/13/1970	Race Point, Cape Cod Bay, MA	N42	W070	4	16:26.4	7	Ambient is low. A few rt. whale calls. Good recording.
70017	Eubalaena glacialis	4/13/1970	Race Point, Cape Cod Bay, MA	N42	W070	4	16:17.2		
70018	Eubalaena glacialis	4/13/1970	Race Point, Cape Cod Bay, MA	N42	W070	4	16:08.2		
70012	Eubalaena glacialis, Lagenorhynchus albirostris	4/13/1970	Race Point, Cape Cod Bay, MA	N42	W070	4	16:18.0	3	Very noisy ambient from ship engine noise.
70014	Eubalaena glacialis, Lagenorhynchus albirostris	4/13/1970	Race Point, Cape Cod Bay, MA	N42	W070	4	16:21.3	6	Ambient is low. Many rt. whale calls. Good recording.
70015	Eubalaena glacialis, Lagenorhynchus albirostris, Balaenoptera physalus	4/13/1970	Race Point, Cape Cod Bay, MA	N42	W070	4	18:10.3	5	Ambient recording. Possible faint squeals.
70027	Fish, sensu lato	5/23/1905	Western North Atlantic	unknown	unknown	1	46:34.0	8	Very good compilation recording of various fish sounds.
56066	Fish, sensu lato	6/13/1956	Lerner Marine Lab, Bimini, Bahamas	N25	W079	1	12:46.7	8	Compilation of sounds recorded near and at Bimini. "Bahama Marine Sounds". 15 ips Tape copied Dec. 18, 1956
58016	Fish, sensu lato	3/16/1958	Marineland of the Pacific Holding tank, San Diego, CA	unknown	unknown	1	07:56.9	6	Ambient is low. Very good recording. Not much

59026	Fish, sensu lato	7/28/1959	Off VA near Wilmington Valley	N37	W073	2	14:17.8	5	Data on Ch1 and voice on Ch2. First part of recording: recording of a filefish that is in a barrel on deck of Bear. Second part of recording is of plankton in a barrel on deck of Bear. Moderate ambient of ship noise and voices.
59027	Fish, sensu lato	7/28/1959	Off VA near Wilmington Valley	N37	W073	2	08:28.8	5	Data on Ch1 and voice on Ch2. First part of recording: recording of plankton in a barrel on deck of Bear. Second part of recording is of Seriola in a barrel on deck of Bear. Moderate ambient of ship noise and voices.
61005	Fish, sensu lato	3/27/1961	Bimini, Bahamas	N25	W077	1	09:36.5	4	Shallow and deep phones
65028	Fish, sensu lato	10/14/1965	Oahu, HI	N30	W158	1	31:30.3	5	Recordings of fishes, Balistidae and Holocentridae
56069	Fish, sensu lato	6//1956	Bimini, Bahamas	N25	W079	1	12:11.1		Fish selections from Bimini: Diodon hystrix (feeding), Diodon hystrix (held in hand), Variety of fish (except trigger fish), Balistes vetula and Melichthys piceus, Haemulon sciurus (held in hand), Holocentrus ascensionis (held in hand), Epinephelus striatus, Sphaeroides spengleri, Pomacanthus arcuatus, Holocentrus ascensionis, Caranx hippos, Pomacanthus arcuatus, Panulirus argus, Panulirus argus (held in hand), Panulirus argus (feeding), Gonodactylus sp., Alpheus armatus. Ambient is low. Very good recording. Overloaded.
62028	Fish, sensu lato; General cetacean	7//1962	Univ. of Miami facilities, Bimini, Bahamas	N25	W077	2	18:14.1	2	
49010	Fish, sensu lato; Phocidae	7/27/1949	Tadousac, Quebec; Saguenay River, Quebec, Canada	N48	W070	1	1:05:05.8	5	First half of tape is a recording of trout in a fish hatchery in Quebec. Low ambient noise consisting of pump noise. Second half is of seals. Moderate ambient of wave noise and ship engines.
54036	Fish: Prionotus	8/16/1954	Woods Hole, MA	N41	W071	2	15:24.2	8	Background noise, Sea robins respond to QBG signal.
54029	Fish: Prionotus	8/17/1954	Woods Hole, MA	N41	W071	2	15:59.7	8	Fish calls. Ambient of water movement. Good recording.
54030	Fish: Prionotus	8/17/1954	Woods Hole, MA	N41	W071	2	16:10.6	7	Fish calls. Ambient of water movement and boat horns. Good recording.
54031	Fish: Prionotus	8/17/1954	Woods Hole, MA	N41	W071	2	15:51.3	8	Fish calls. Ambient of water movement and boat horns. Good recording.

54033	Fish: Prionotus	8/17/1954	Woods Hole, MA	N41	W071	2	10:33.7	7	Fish calls. Ambient of water movement and boat horns. Good recording.
54034	Fish: Prionotus	8/16/1954 - 8/19/1954	Woods Hole, MA	N41	W071	2	16:18.6	8	Fish calls. Ambient of water movement and boat horns. Good recording.
54035	Fish: Prionotus	8/16/1954 - 8/19/1954	Woods Hole, MA	N41	W071	1	16:16.2	8	Compilation of fish calls; 30Kc, 25Kc, and 40Kc responses.
54032	Fish: Prionotus	8/17/1954 - 8/18/1954	Woods Hole, MA	N41	W071	2	12:08.5	8	Fish calls. Ambient of water movement and boat horns. Good recording.
49002	General cetacean	10/6/1949	30 mi S of Sambro Light vessel, Nova Scotia, Canada	N44	W064	1	03:17.6	3	Moderate ambient. Distorted recording. Poor recording.
57023	General cetacean	4/20/1957	Off sea buoy at St. Georges, Bermuda	N32	W064	1	28:42.6	2	High ambient. Engine noise is very loud.
61080	General cetacean	8/12/1961	Near New England Seamounts	N38	W065	2	06:29.6	5	Not a good comp. tape.
64114	General cetacean	12/8/1964	North of Wood Head, Doubtful Sound, New Zealand	S45	E167	2	08:20.0	3	Porpoise squeals and clicks. High ambient. Nearby ship engine noise is present.
61095	General cetacean	//1961	Bimini, Bahamas	N25	W077	1	3:09.503	5	Variety of cetacean sounds recorded by Univ. of Miami at Bimini Hydrophone Inst. Moderate ambient. Recording is a bit overloaded.
61006	General cetacean	4//1961	USN ship	unknown	unknown	2	29:30.9	7	Compilation tape with many examples of cetacean sounds
49012	General mammal	7/30/1949	Back Lake, Pittsburg, NH	N45	W071	1	56:25.8	4	Moderate to high ambient of electrical noise. This is an attempt to record beaver. Ambient recording.
52004	Globicephala macrorhynchus	4/8/1952	6 mi off Castle Harbour, Bermuda	N32	W064	1	08:21.5	4	Faint calls. High ambient. Ship creaks and water splashes
52005	Globicephala macrorhynchus	4/8/1952	6 mi. off Castle Harbour, Bermuda	N32	W064	1	08:01.6	4	Faint calls. High ambient. Ship creaks and water splashes
54040	Globicephala macrorhynchus	5/20/1954	4 mi. N end of Gun Cay, Bahamas	N25	W079	1	06:34.1	9	Reel No. 3, sequences 1, 2 and 3. Very good recording of pilot whale whistles. Ambient is low.
57019	Globicephala macrorhynchus	3/21/1957	NW arm Tongue of the Ocean	N25	W078	1	07:56.8	8	"Hey Suzie" recording. Small harpooned female onboard. Remaining pilot whales calling close to ship. Very good recording.
65002	Globicephala macrorhynchus	1/25/1965	10 mi SE of San Pedro Light, CA	N37	W122	2	8:04.3	6	Buzzes and whistles from pilot whales.



65003	Globicephala macrorhynchus	1/25/1965	10 mi SE of San Pedro Light, CA	N37	W122	2	8:22.2	5	Ship ambient is loud. Some buzzes and squeals in beginning of recording.
65004	Globicephala macrorhynchus	1/25/1965	10 mi SE of San Pedro Light, CA	N37	W122	2	8:11.5	6	Buzzes and whistles from pilot whales. Ship ambient is a bit loud. Good recording
65005	Globicephala macrorhynchus	1/25/1965	10 mi SE of San Pedro Light, CA	N37	W122	2	8:17.8	8	Very good recording. Buzzes and squeals.
65025	Globicephala macrorhynchus	11/10-11/1965	Off Catalina Island, Ca	N33	W113	2	26:56.7	3	Clicks. Ambient is high.
57021	Globicephala macrorhynchus	3/16/1957; 3/21/1957	10 mi. N of Bimini; NW arm Tongue of the Ocean	N25	W077	1	15:55.6	8	Copy of "Hey Suzie" recordings. Good recording.
57018	Globicephala macrorhynchus		10 mi. N of Bimini, Tongue of the Ocean	N25	W079	1	08:00.0	8	"Hey Suzie" recording. Small harpooned female onboard. Remaining pilot whales calling close to ship. Very good recording.
61004	Globicephala macrorhynchus		Bimini, Bahamas	N25	W077	1	02:35.5	4	Deep water hydrophone at 1200 ft depth.
52003	Globicephala macrorhynchus, Megaptera novaeangliae	4/8/1952	6 mi off St David's Head, Bermuda	N32	W064	1	05:17.9	4	Ship creaks and water slaps. Ambient recording. Possible humpback calls, but recording is a bit muddy.
52052	Globicephala macrorhynchus, Megaptera novaeangliae	4/8/1952	SE of St. David's Head, Bermuda	N32	W064	1	16:50.3	5	Pilot whales near ship. Distant humpback calls. Good copy of 52-3 and -4. Ambient is low-- ship creaks and water splashes.
55100	Globicephala macrorhynchus; Megaptera novaeangliae	5/20/1954; 1/30/1955	4 mi. W Green Cay, Bahamas; 2 miles N of Pt Borinquen, Puerto Rico	N32; N18	W064; W065	1	16:45.1	7	Pilot whales recorded in Bahamas and the humpbacks were recorded in PR. See tech Rep 55-10 (Marine Lab - University of Miami) for analysis and info. Good recording.
49013	Globicephala macrorhynchus; Stenella frontalis; Tursiops truncatus	5/13/1949	Marine Studios, St. Augustine, FL	N30	W081	1	46:40.0	4	Moderate to high ambient sounds from aquarium pumps and aquarium visitors. Mostly Tursiops vocalizations.
49014	Globicephala macrorhynchus; Stenella frontalis; Tursiops truncatus	5/14/1949	Marine Studios, St. Augustine, FL	N30	W081	1	1:03:21.1	4	Moderate ambient electrical noise. A few animal sounds.

49015	Globicephala macrorhynchus; Stenella frontalis; Tursiops truncatus	5/14/1949	Marine Studios, St. Augustine, FL	N30	W081	1	58:54.3	4	Moderate ambient of electrical noise and water splashes. A few animal sounds at end of recording.
49016	Globicephala macrorhynchus; Stenella frontalis; Tursiops truncatus	5/14/1949	Marine Studios, St. Augustine, FL	N30	W081	1	1:02:18.1	5	Low ambient of electrical noise and water splashes. Tursiops sounds throughout recording.
49017	Globicephala macrorhynchus; Stenella frontalis; T. truncatus	5/14/1949	Marine Studios, St. Augustine, FL	N30	W081	1	1:04:01.6	5	Low ambient of electrical noise and water splashes. Tursiops sounds throughout recording.
49019	Globicephala macrorhynchus; Stenella frontalis; Tursiops truncatus	5/15/1949	Marine Studios, St. Augustine, FL	N30	W081	1	36:05.4	5	Low ambient of electrical noise and water splashes. Tursiops sounds throughout recording.
49018	Globicephala macrorhynchus; Stenella frontalis; Tursiops truncatus	5/14/1949 - 5/15/1949	Marine Studios, St. Augustine, FL	N30	W081	1	1:05:33.1	5	Low ambient of electrical noise and water splashes. Tursiops sounds throughout recording.
53007	Globicephala melaena	6/11/1953	Nonamesset Island Pond, MA	N41	W070	2	04:31.0	3	Generator noise overloaded on CH1. Voice on 2. Whistles
53002	Globicephala melaena	6/11/1953	W. N. Atlantic	unknown	unknown	2	15:47.8	1	Voice only
53006	Globicephala melaena	6/11/1953	W.N.Atlantic	N41	W070	2	16:12.4	5	Overloaded a bit; Whistles. Data on 1 and voice on 2
54001	Globicephala melaena	7/18/1954	Trinity Bay, Newfoundland	N48	W053	1	06:59.8	9	Ambient low. Very good recording of pilot whale whistles.
54002	Globicephala melaena	7/18/1954	Trinity Bay, Newfoundland	N48	W053	1	08:10.1	7	Ambient low in beginning of recording then gets a bit too high. Good recording of pilot whale whistles.
54003	Globicephala melaena	7/18/1954	Trinity Bay, Newfoundland	N48	W053	1	08:07.9	8	Ambient low. Very good recording of pilot whale whistles.
54004	Globicephala melaena	7/18/1954	Trinity Bay, Newfoundland	N48	W053	1	08:07.0	8	Ambient low. Very good recording of pilot whale whistles.

54005	Globicephala melaena	7/18/1954	Trinity Bay, Newfoundland	N48	W053	1	08:10.4	7	Ambient low. Pilot whales mostly silent. Motor boats in area attempting to drive the whales. Good recording.
54006	Globicephala melaena	7/18/1954	Trinity Bay, Newfoundland	N48	W053	1	07:56.8	8	Ambient low. Very good recording of pilot whale whistles.
54007	Globicephala melaena	7/18/1954	Trinity Bay, Newfoundland	N48	W053	1	08:02.4	7	Ambient low. Pilot whales mostly silent. Motor boats in area attempting to drive the whales. Good recording.
54008	Globicephala melaena	7/18/1954	Trinity Bay, Newfoundland	N48	W053	1	08:22.1	5	Ambient low. Pilot whales mostly silent. Motor boats in area attempting to drive the whales.
54009	Globicephala melaena	7/18/1954	Trinity Bay, Newfoundland	N48	W053	1	08:36.9	6	Whale drive and lancing. Some whistles. Mostly ambient sounds of boats.
54010	Globicephala melaena	7/18/1954	Trinity Bay, Newfoundland	N48	W053	1	08:37.4	6	Whale drive onto beach. Some whistles. Ambient sounds of boats.
54019	Globicephala melaena	7/18/1954	Trinity Bay, Newfoundland	N48	W053	1	16:35.6	8	Copy of field tapes, Dildo Arm. Copied 6/VII/54
54020	Globicephala melaena	7/18/1954	Trinity Bay, Newfoundland	N48	W053	1	16:18.1	7	Copy of field tapes, Dildo Arm. Copied 6/VII/54, reel #2
54024	Globicephala melaena	7/18/1954	Trinity Bay, Newfoundland	N48	W053	1	16:01.9	8	Copy of field tapes, Dildo Arm. Copied 6/VII/54, reel #3 good
54025	Globicephala melaena	7/28/1954	Trinity Bay, Newfoundland	N48	W053	1	16:00.0	8	Pothole drive, Chapel Arm, copy of field tapes, 6/VIII/54,
58037	Globicephala melaena	8/2/1958	90 mi E of Gibraltar	N36	W004	2	30:54.5	4	Overloaded.
58001	Globicephala melaena	8/5/1958	WNA	N39	W072	2	11:11.9	8	Voice on CH2. Low ambient. Good pilot whale whistles in the beginning. Good recording.
60014	Globicephala melaena	9/8/1960	N of Prince Edward Island, Canada	N42	W065	1	7:55.606	7	Copy of a tape recorded by MacPherson. Good recording. Low ambient.
61009	Globicephala melaena	6/19/1961	Woods Hole, MA	N41	W070	1	32:41.4	2	Mostly chat
61009A	Globicephala melaena	6/19/1961	Woods Hole, MA	N41	W070	1	08:31.9	2	Mostly chat
61082	Globicephala melaena	8/18/1961	Near New England Seamounts	N37	W065	2	33:15.0	3	Not a good tape. electrical noise.
61083	Globicephala melaena	10/10/1961	Pemaquid Pt Lt., ME	N43	W069	2	15:17.3	6	Good tape. Whistles.
64006	Globicephala melaena	7/7/1964	1 mi. NE West Chop, Martha's Vineyard, MA	N42	W070	2	16:49.7	3	Clicks throughout the recording. Overloaded. Not a very good recording.

64007	Globicephala melaena	7/7/1964	1 mi. NE West Chop, Martha's Vineyard, MA	N42	W070	2	08:23.6	3	Nearby ship engine noise throughout recording. Clicks throughout the recording.
61081	Globicephala melaena	8/13/1961 - 8/14/1961	Near New England Seamounts	N38	W065	2	33:13.6	3	Not a good tape. Speeds variable; electrical noise.
54041	Globicephala melaena	8/20/1954 - 8/24/1954	Newfoundland	N48	W050	2	16:01.8	8	Submarine recording of ambient and pilot whale whistles with reverb. Very low ambient. Good recording.
52056	Globicephala melaena		S of Iceland	N63	W017	1	07:47.8		Good recording of pilot whale whistles.
56034	Globicephala melaena; Megaptera novaeangliae	9/20/1956	Georges Bank	N42	W067	1	08:03.9	7	Low ambient. Silent ship. A few faint pilot whale whistles and a few humpback moans. Good recording.
56035	Globicephala melaena; Megaptera novaeangliae	9/20/1956	Georges Bank	N42	W067	1	07:06.0	6	Low ambient. Silent ship. A few faint pilot whale whistles. Noise calibration.
57028	Globicephala melaena; Physeter catodon	7/22/1957	Mid-Atlantic coast of US	N49	W067	2	12:51.9	6	Ch 2 data; ch 1 voice. Loud phone bumping throughout recording. Sperm whales in the beginning.
52053	Grampus griseus	8/21/1952	70 mi S Block Is, R. I.	N39	W073	1	04:25.6	7	HP (1000Hz) filtered copy of a Bear recording. A few Grampus bursts. Good recording.
52054	Grampus griseus	8/21/1952	New York	N40	W071	1	11:51.2	7	Copied through a 10 kHz HP filter. Echosounder is present. A few Grampus buzzes. Good recording.
52058	Grampus griseus	8/21/1952	New York	unknown	unknown	1	13:41.7	5	Ambient consists of ship generator noise. Grampus buzzes are a bit faint.
52051	Grampus griseus	8/21/1952	unknown	N39	W073	1	16:17.6	3	High ambient of ship generator noise. Grampus buzzes are faint and few.
57022	Grampus griseus	3/21/1957	10 mi. N of Bimini, Tongue of the Ocean	N25	W079	1	03:17.2	8	Copy of Grampus recording, tape 57020. Good recording.
57020	Grampus griseus	3/21/1957	NW arm Tongue of the Ocean	N25	W077	1	02:44.3	7	Good recording.
58003	Grampus griseus	8/6/1958	WNA	N39	W072	2	15:57.9	5	Voice on 1; data on 2. Ship engines in background. Grampus buzzes
59010	Grampus griseus	7/25/1959	Off VA near Phoenix Canyon	N38	W074	1	16:34.3	5	Data and voice on Ch1. Moderate ambient of possible electrical noise. No sounds detected.
59011	Grampus griseus	7/26/1959	Off VA near Phoenix Canyon	N38	W074	1	08:11.2	6	Data and voice on Ch1. Moderate ambient of possible electrical noise. Grampus sounds detected.

59012	Grampus griseus	7/26/1959	Off VA near Phoenix Canyon	N38	W074	1	08:02.5	7	Data and voice on Ch1. Low ambient. Grampus sounds throughout. Good recording.
59013	Grampus griseus	7/26/1959	Off VA near Phoenix Canyon	N38	W074	1	08:02.5	7	Data and voice on Ch1. Low ambient. Grampus sounds throughout. Good recording.
59014	Grampus griseus	7/26/1959	Off VA near Phoenix Canyon	N38	W074	1	08:17.6	3	Data and voice on CH1. Recorder speed problems. Poor recording.
59029	Grampus griseus	7/29/1959	Off VA near South Heves Canyon	N38	W073	2	15:54.8	8	Data on Ch1 and voice on Ch2. Low ambient. Good Grampus pulses. Good recording.
59030	Grampus griseus	7/29/1959	Off VA near South Heves Canyon	N38	W073	2	15:27.7	8	Data on Ch1 and voice on Ch2. Low ambient. Good Grampus pulses. Good recording.
60003	Grampus griseus	7/6/1960	Buzzards Bay, MA	N40	W070	1	8:03.821	6	Ambient is moderate to low. Ambient of water splashes. A few Grampus buzzes. Good recording.
60004	Grampus griseus	7/6/1960	Buzzards Bay, MA	N40	W070	1	5:31.450	5	Ambient is moderate, consisting of water splashes and phone bumps. A few buzzes in the beginning.
64035	Grampus griseus	7/27/1964	Isla Maria Magdalena, Nayarit, Mexico	N21	W107	2	08:06.9	5	Phone bumping. Grampus pulsed click series.
52055	Grampus griseus, Globicephala macrorhynchus	8/8/1952	New York; Bermuda	N40	W071	1	09:56.6	7	Copied through a 10 kHz HP filter. Grampus buzzes recorded off NY. The pilot whale whistles were originally recorded on 8 April 1952 onboard the Caryn off Bermuda. Echosounder is present. Good recording.
63029	Grampus griseus, Lagenorhynchus obliquidens, Tursiops truncatus	//1963	Japan	N43	E143	1	05:05.5	6	Good recordings. Some water noise and phone bumping.
59028	Grampus griseus; Stenella coerulealba	7/29/1959	Off VA near South Heves Canyon	N38	W073	2	16:18.2	5	Data on Ch1 and voice on Ch2. High ambient during first half of tape from ship noise. Second half has lower ambient and good Grampus pulses. No obvious sounds from Stenella.
63001	Halichoerus grypus	1/21/1963	N. Y. Aquarium, N. Y.	unknown	unknown	2	16:05.6	5	Water splashing throughout recording. Clicks.
63002	Halichoerus grypus	1/21/1963	N. Y. Aquarium, N. Y.	unknown	unknown	2	14:49.0	5	Water splashing throughout recording. Clicks.

63011	Halichoerus grypus, Callorhinus ursinus	1/22/1963	N. Y. Aquarium, N. Y.	unknown	unknown	2	16:04.1	5	Quiet.
63007	Halichoerus grypus, Odobenus rosmarus	1/22/1963	N. Y. Aquarium, N. Y.	unknown	unknown	2	16:05.8	7	A few sounds.
64137	Homo sapiens	//1964	Auditory Branch of the Medical Research Laboratory, Groton, Connecticut	unknown	unknown	1	05:05.7	5	Helium and its effects upon speech.
57033	Homo sapiens	3/28/1957	unknown	N33	W076	1	01:11.2	5	Val Worthington attempts to imitate sperm whale sounds.
61099	Homo sapiens	5/13/1966	Gambell, AK	unknown	unknown	1	17:02.603	9	Eskimo dance
61100	Homo sapiens	5/15/1966	Gambell, AK	unknown	unknown	1	15:55.875	9	Eskimo dance
64001	Ice	3/21/1963	Jan Mayen Island	N71	W009	1	07:41.4	5	Ice. Ambient
65010	Ice	5/1/1965	Beaufort Sea	N73	W156	1	1:28.1	4	Ice sounds. Recording is overloaded.
70021	Ice, Erignathus barbatus	5/13/1970	N beach of Gambell, St Lawrence I., Alaska	N63	W171	1	08:13.0	6	High ambient noise. Trills in background. Good recording of ice.
70025	Ice, Erignathus barbatus	5/22/1970	10 mi. SW Gambell, St. Lawrence I., Alaska	N63	W171	1	04:30.0	5	Ambient of ice buzzes. Bearded seals in background.
57034	Ice; Ambient	4/30/1957	Arctic	unknown	unknown	2	31:25.7	7	Naval Electronics Lab recording of Arctic ambient incl. ice and bearded seals. Good recording. Overloaded. Mostly voice.
56002	Inia geoffrensis	3/9/1956	Silver Springs, FL	N25	W080	1	05:27.4	4	
56003	Inia geoffrensis	3/10/1956	Silver Springs, FL	N25	W080	1	08:21.3	5	Voice and ambient, but no animal sounds. Voice overloaded.
56004	Inia geoffrensis	3/12/1956	Silver Springs, FL	N25	W080	1	08:35.5	5	Voice and ambient, but no animal sounds. Voice overloaded.
56005	Inia geoffrensis	3/12/1956	Silver Springs, FL	N25	W080	1	05:04.3	5	Voice and ambient, but no animal sounds. Voice overloaded.
56036	Inia geoffrensis	10/2/1956	Silver Springs, Fla.	N25	W080	1	08:08.7	7	Low ambient. A few very faint Inia sounds. Good recording.
56037	Inia geoffrensis	10/2/1956	Silver Springs, Fla.	N25	W080	1	08:06.3	7	Low ambient. A few clicks and squeals from Inia. Good recording.
56038	Inia geoffrensis	10/2/1956	Silver Springs, Fla.	N25	W080	1	08:08.2	7	Low ambient. A few clicks and squeals from Inia. Good recording.

56039	Inia geoffrensis	10/2/1956	Silver Springs, Fla.	N25	W080	1	08:05.0	7	Low ambient. A few clicks and squeals from Inia. Good recording.
56040	Inia geoffrensis	10/2/1956	Silver Springs, Fla.	N25	W080	1	08:08.5	8	Low ambient, mostly. Electrical noise is sporadic. Good squeals and clicks on occasion. Good recording.
56041	Inia geoffrensis	10/2/1956	Silver Springs, Fla.	N25	W080	1	08:07.9	8	Low ambient. A few good click series from Inia. Good recording.
56042	Inia geoffrensis	10/2/1956	Silver Springs, Fla.	N25	W080	1	08:10.6	7	Low ambient. A few good clicks, but low level. Good recording.
56043	Inia geoffrensis	10/3/1956	Silver Springs, Fla.	N25	W080	1	08:08.7	8	Low ambient. Good clicks series. Good recording.
56044	Inia geoffrensis	10/3/1956	Silver Springs, Fla.	N25	W080	1	08:04.2	8	Low ambient. A few good clicks series. Good recording.
56045	Inia geoffrensis	10/3/1956	Silver Springs, Fla.	N25	W080	1	08:08.8	6	Low ambient. Very few clicks. Good recording.
56046	Inia geoffrensis	10/3/1956	Silver Springs, Fla.	N25	W080	1	08:01.5	6	Low ambient. Very few clicks. Good recording.
56047	Inia geoffrensis	10/3/1956	Silver Springs, Fla.	N25	W080	1	08:08.8	8	Low ambient. Good clicks series and squeals. Very good recording.
56048	Inia geoffrensis	10/3/1956	Silver Springs, Fla.	N25	W080	1	08:09.2	8	Low ambient. Good chirps and squeals accompanied by bubbles from blow hole. Very good recording.
56049	Inia geoffrensis	10/3/1956	Silver Springs, Fla.	N25	W080	1	08:05.2	8	Low ambient. A few good clicks series. Good recording.
56050	Inia geoffrensis	10/3/1956	Silver Springs, Fla.	N25	W080	1	08:03.4	8	Low ambient Chirps and loud clicks. Good recording.
56051	Inia geoffrensis	10/3/1956	Silver Springs, Fla.	N25	W080	1	08:04.8	8	Low ambient Chirps and loud clicks. Good recording.
56052	Inia geoffrensis	10/3/1956	Silver Springs, Fla.	N25	W080	1	08:06.3	8	Low ambient Loud click series during feeding. Good recording.
56054	Inia geoffrensis	10/2/1956 - 10/3/1956	Silver Springs, Fla.	N25	W080	1	07:30.0	8	Inia selections for master recording.
56054A	Inia geoffrensis	10/2/1956 - 10/3/1957	Silver Springs, Fla.	N25	W080	1	07:28.7	8	Inia selections for master recording.
59036	Jet boat engine	11/19/1959	Great Harbor, Woods Hole, MA	N41	W071	1	03:32.991	5	Recording of Dutch hydraulic jet propelled launch.
54021	Lagenorhynchus acutus	9/14/1954	Off MA	unknown	unknown	1	16:08.9	5	One female collected from this pod. At least one calf in the pod. Recorder troubles.
54021B	Lagenorhynchus acutus	9/14/1954	Off MA	unknown	unknown	1	15:22.6	5	Dub of 54-21. One female collected from this pod. At least one calf in the pod. Recorder troubles.
54022	Lagenorhynchus acutus	9/14/1954	Off MA	unknown	unknown	1	15:19.3	3	Dub of 54-21. One female collected from this pod. At least one calf in the pod. Recorder troubles.

61072	Lagenorhynchus acutus	9/30/1961	S of Georges Basin, MA	N42	W067	2	15:56.0	9	Low ambient. Very good tape. Whistles; Clicks. Very good recording.
61075	Lagenorhynchus acutus	9/30/1961	S of Georges Basin, MA	N42	W067	2	16:50.8	6	Faint whistles around 12 kHz. Noise cal. at end of tape. Good recording. Engine noise throughout.
77006	Lagenorhynchus acutus, Balaenoptera physalus, Megaptera novaeangliae	5/5/1977	Cape Cod Bay, MA	N41	W071	4	28:21.1	8	Low level Lags in the beginning. 20 Hz fin calls present. Low ambient throughout recording. Good recording.
59037a	Lagenorhynchus albirostris	2/28/1959	Balaenoptera physalus	N43	W070	1	1:40.582	8	Selection from cue 22-200 prepared for Whale and Porpoise Voices recording. Low ambient. Very good recording.
59037	Lagenorhynchus albirostris	2/28/1959	Cape Porpoise, ME	N43	W070	2	14:10.000	6	Data on Ch2 and voice on Ch1. Low ambient. Good Lag. sounds in beginning of tape. Good recording.
70011	Lagenorhynchus albirostris	4/13/1970	Race Point, Cape Cod Bay, MA	N42	W070	4	16:15.7	5	Ambient recording with much ship noise.
58017	Lagenorhynchus albirostris	//1958	Cape Porpoise, ME	N43	W070	1	08:09.6	4	Overloaded. Pulsed clicks and buzzes.
64136	Lagenorhynchus obliquidens	9/22/1964	Point Magu, CA	N34	W119	1	26:05.8	5	Phone bumps are loud. Wind? Some whistles
63020	Lagenorhynchus obliquidens, Tursiops truncatus, Primates, Aves	10/11/1959; 3/19/1961; 4//1962	Japan	N43	E143	2	11:15.1	2	Poor recording. Overloaded.
64122	Lagenorhynchus obscurus	12/13/1964	5 miles southeast of Kaikoura Peninsula, New Zealand	S45	E167	2	08:11.8	8	Phone in 30 ft. of water. Some delphinid clicks. Overloaded at times. Recording of clicks and pulsed click bursts.
64126	Lagenorhynchus obscurus	12/13/1964	5 miles southeast of Kaikoura, New Zealand	S45	E167	2	51:50.4	8	Very good recording of clicks and click bursts. Animals are close by.
64124	Lagenorhynchus obscurus	12/13/1964	5 to 6 miles southeast of Kaikoura Head, New Zealand	S45	E167	2	08:09.3	8	Very good recording of clicks and click bursts. Some water splashes and phone bumps. Some overloading in second half of recording. Animals are close by.



64123	Lagenorhynchus obscurus	12/13/1964	5 to 6 miles southeast of Kaikoura Peninsula, New Zealand	S45	E167	2	08:17.5	8	
64130	Lagenorhynchus obscurus	12/15/1964	Tory Channel, New Zealand	S45	E167	2	08:16.6	5	Quiet recording. Ambient consists of water flow noise. In presence of Lags. passing by ship.
63042	Lagenorhynchus obscurus	3/6/1963; 3/8/1963; 3/10/1963 - 3/11/1963	Cedros Island, Baja California	N28	W115	2	38:42.6	3	Overloaded.
64115	Lagenorhynchus sp.	12/8/1964	North end of Acheron Passage, Doubtful Sound, New Zealand	S45	E167	2	08:12.7	3	Loud ambient. Phone sloshing in water. No animal sounds detected.
63034	Leptonychotes weddelli	10/26/1963	McMurdo Sound, Antarctica	S77	E166	1	25:00.0	6	Weddell calls are overloaded at times.
63034 copy	Leptonychotes weddelli	10/26/1963	McMurdo Sound, Antarctica	S77	E166	1	24:58.5	6	Weddell calls are overloaded at times. Loud ambient at times.
63035	Leptonychotes weddelli	10/26/1963	McMurdo Sound, Antarctica	S77	E166	1	20:40.0	3	Poor recording. Overloaded. Divers, engines, etc.
63035 copy	Leptonychotes weddelli	10/26/1963	McMurdo Sound, Antarctica	S77	E166	1	20:23.4	4	Poor recording. Overloaded. Divers, engines, etc.
63036	Leptonychotes weddelli	11/12/1963	McMurdo Sound, Antarctica	S77	E166	1	18:44.0	4	Weddell calls are overloaded at times. Loud ambient at times.
63036 copy	Leptonychotes weddelli	11/12/1963	McMurdo Sound, Antarctica	S77	E166	1	19:11.8	4	Weddell calls are overloaded at times. Loud ambient at times.
63037	Leptonychotes weddelli	11/12/1963	McMurdo Sound, Antarctica	S77	E166	1	25:03.7	5	Divers, and engine noise are quite loud. Some seal.
63037 copy	Leptonychotes weddelli	11/12/1963	McMurdo Sound, Antarctica	S77	E166	1	24:38.3	5	Divers, and engine noise are quite loud. Some seal.
63038	Leptonychotes weddelli	11/12/1963	McMurdo Sound, Antarctica	S77	E166	1	24:53.8	6	Seal sounds are a bit overloaded at times. Electrical noise throughout recording.
63038 copy	Leptonychotes weddelli	11/12/1963	McMurdo Sound, Antarctica	S77	E166	1	25:00.0	6	Seal sounds are a bit overloaded at times. Electrical noise throughout recording.
63039	Leptonychotes weddelli	11/13/1963	Turtle Rock, McMurdo Sound, Antarctica	S77	E166	1	33:16.0	5	In-air sounds. Bit overloaded.
63039 copy	Leptonychotes weddelli	11/13/1963	Turtle Rock, McMurdo Sound, Antarctica	S77	E166	1	35:27.4	5	In-air sounds. Bit overloaded.

64053	Leptonychotes weddelli	10/23/1964	1 mi. NW Hut Point, McMurdo Sound, Antarctica	S77	E170	1	14:56.8	5	Ice, machinery, footsteps, wind. Distant seal sounds.
64138	Leptonychotes weddelli	10/23/1964	Ice Station, McMurdo Sound, Antarctica	S77	E166	1	16:43.1	7	Quiet recording. Weddell seal trills and human footsteps on ice and snow. Good recording.
64037	Leptonychotes weddelli	10/24/1964	Razor Back Rock, Antarctica	S77	E166	2	08:19.0	7	A few seal sounds.
64038	Leptonychotes weddelli	11/2/1964	2.25 mi. W of Castle Rock, McMurdo Sound, Antarctica	S77	E166	2	16:18.3	9	Very good recording
64040	Leptonychotes weddelli	11/4/1964	McMurdo Sound, Antarctica	S77	E166	2	16:20.5	8	Trills. Quiet ambient. Good recording.
64041	Leptonychotes weddelli	11/4/1964	2.25 mi. W of Castle Rock, McMurdo Sound, Antarctica	S77	E166	2	16:21.4	8	Trills. Quiet ambient. Good recording.
64042	Leptonychotes weddelli	11/4/1964	2.25 mi. W of Castle Rock, McMurdo Sound, Antarctica	S77	E166	2	16:30.0	9	Trills. Quiet ambient. Good recording.
64043	Leptonychotes weddelli	11/4/1964	2.25 mi. W of Castle Rock, McMurdo Sound, Antarctica	S77	E166	2	16:30.0	9	Trills. Quiet ambient. Good recording.
64039	Leptonychotes weddelli	11/4/1964	McMurdo Sound, Antarctica	S77	E166	2	16:22.7	5	Trills; machinery noise.
64044	Leptonychotes weddelli	11/5/1964	2.25 mi. W of Castle Rock, McMurdo Sound, Antarctica	S77	E166	2	16:29.2	9	Trills. Quiet ambient. Good recording.
64045	Leptonychotes weddelli	11/5/1964	2.25 mi. W of Castle Rock, McMurdo Sound, Antarctica	S77	E166	2	16:30.1	9	Trills. Quiet ambient. Good recording.
64046	Leptonychotes weddelli	11/6/1964	2.25 mi. W of Castle Rock, McMurdo Sound, Antarctica	S77	E166	2	16:24.9	9	Trills. Quiet ambient. Good recording.
64047	Leptonychotes weddelli	11/8/1964	McMurdo Sound, Antarctica	S77	E166	2	33:26.8	9	Trills. Quiet ambient. Good recording.
64048	Leptonychotes weddelli	11/8/1964	McMurdo Sound, Antarctica	S77	E166	2	33:35.6	9	Trills. Quiet ambient. Good recording.

64049	Leptonychotes weddelli	11/8/1964	McMurdo Sound, Antarctica	S77	E166	2	33:42.1	9	Trills. Quiet ambient. Good recording.
64050	Leptonychotes weddelli	11/8/1964	McMurdo Sound, Antarctica	S77	E166	2	33:35.5	9	Trills. Quiet ambient. Good recording.
64139	Leptonychotes weddelli	11/9/1964	Ice Station, McMurdo Sound, Antarctica	S77	E166	1	16:16.2	9	Quiet recording. Weddell seal trills Good recording.
64052	Leptonychotes weddelli	11/9/1964	McMurdo Sound, Antarctica	S77	E166	2	33:33.3	9	Trills. Quiet ambient. Good recording.
64153	Leptonychotes weddelli	11/9/1964	McMurdo Sound, Antarctica	S77	E166	2	33:33.4	9	Very good recording of Weddell seals. Quiet ambient.
64154	Leptonychotes weddelli	11/9/1964	McMurdo Sound, Antarctica	S77	E166	2	33:21.6	9	Very good recording of Weddell seals. Quiet ambient.
64155	Leptonychotes weddelli	11/9/1964	McMurdo Sound, Antarctica	S77	E166	2	33:31.3	9	Very good recording of Weddell seals. Quiet ambient.
64156	Leptonychotes weddelli	11/9/1964	McMurdo Sound, Antarctica	S77	E166	2	33:06.7	9	Very good recording of Weddell seals. Quiet ambient.
64157	Leptonychotes weddelli	11/9/1964	McMurdo Sound, Antarctica	S77	E166	2	33:24.5	9	Very good recording of Weddell seals. Quiet ambient.
64158	Leptonychotes weddelli	11/9/1964	McMurdo Sound, Antarctica	S77	E166	2	33:28.1	9	Very good recording of Weddell seals. Quiet ambient.
64054	Leptonychotes weddelli	11/10/1964	1/2 mile South of Castle Rock Sulphur Cones, Antarctica	S77	E165	2	08:08.4	6	Distant seal sounds; footsteps.
64055	Leptonychotes weddelli	11/10/1964	1/2 mile South of Castle Rock Sulphur Cones, Antarctica	S77	E165	2	08:19.3	8	Trills. Quiet ambient. Good recording.
64056	Leptonychotes weddelli	11/10/1964	1/2 mile South of Castle Rock Sulphur Cones, Antarctica	S77	E165	2	08:16.2	7	Distant seal sounds; footsteps.
64057	Leptonychotes weddelli	11/10/1964	1/2 mile South of Castle Rock Sulphur Cones, Antarctica	S77	E165	2	08:12.1	7	Distant seal sounds; footsteps.
64159	Leptonychotes weddelli	11/10/1964	McMurdo Sound, Antarctica	S77	E166	2	33:35.4	9	Very good recording of Weddell seals. Quiet ambient.
64160	Leptonychotes weddelli	11/10/1964	McMurdo Sound, Antarctica	S77	E166	2	33:43.7	9	Very good recording of Weddell seals. Quiet ambient.
64161	Leptonychotes weddelli	11/11/1964	McMurdo Sound, Antarctica	S77	E166	2	33:37.4	9	Very good recording of Weddell seals. Quiet ambient.
64162	Leptonychotes weddelli	11/11/1964	McMurdo Sound, Antarctica	S77	E166	2	33:39.2	9	Very good recording of Weddell seals. Quiet ambient.

64163	Leptonychotes weddelli	11/11/1964	McMurdo Sound, Antarctica	S77	E166	2	33:34.9	8	Very good recording of Weddell seals. Quiet ambient.
64164	Leptonychotes weddelli	11/11/1964	McMurdo Sound, Antarctica	S77	E166	2	33:28.2	8	Distant seal sounds. Quiet ambient. Good recording.
64165	Leptonychotes weddelli	11/11/1964	McMurdo Sound, Antarctica	S77	E166	2	33:19.6	8	Distant seal sounds. Quiet ambient. Good recording.
64166	Leptonychotes weddelli	11/11/1964	McMurdo Sound, Antarctica	S77	E166	2	33:26.9	8	Distant seal sounds. Quiet ambient. Good recording.
64167	Leptonychotes weddelli	11/11/1964	McMurdo Sound, Antarctica	S77	E166	2	33:26.3	5	Distant seal sounds. Water splashing is a bit loud. Fair recording.
64168	Leptonychotes weddelli	11/11/1964	McMurdo Sound, Antarctica	S77	E166	2	33:40.7	8	Distant seal sounds. Quiet ambient. Good recording.
64169	Leptonychotes weddelli	11/11/1964	McMurdo Sound, Antarctica	S77	E166	2	33:30.7	9	Nearby seal sounds. Quiet ambient. Good recording.
64170	Leptonychotes weddelli	11/11/1964	McMurdo Sound, Antarctica	S77	E166	2	33:38.8	9	Not too distant seal sounds. Quiet ambient. Good recording.
64171	Leptonychotes weddelli	11/11/1964	McMurdo Sound, Antarctica	S77	E166	4	31:52.0	7	Ambient a bit loud. Good recording.
64172	Leptonychotes weddelli	11/11/1964	McMurdo Sound, Antarctica	S77	E166	4	32:55.6	3	Ambient very loud. Generator noise? Animals close by.
64173	Leptonychotes weddelli	11/11/1964	McMurdo Sound, Antarctica	S77	E166	2	33:41.2	8	Distant seal sounds. Quiet ambient. Good recording.
64175	Leptonychotes weddelli	11/11/1964	McMurdo Sound, Antarctica	S77	E166	2	33:42.6	8	Good recording. Quiet ambient.
64176	Leptonychotes weddelli	11/11/1964	McMurdo Sound, Antarctica	S77	E166	2	33:39.6	8	Distant seal sounds. Quiet ambient. Good recording.
64177	Leptonychotes weddelli	11/13/1964	McMurdo Sound, Antarctica	S77	E166	2	33:39.2	8	Distant seal sounds. Quiet ambient. Good recording.
64178	Leptonychotes weddelli	11/13/1964	McMurdo Sound, Antarctica	S77	E166	2	33:39.4	7	Distant seal sounds. Quiet ambient. Good recording.
64179	Leptonychotes weddelli	11/13/1964	McMurdo Sound, Antarctica	S77	E166	2	33:26.3	8	Good recording. Very quiet ambient. Seals are not too distant.
64180	Leptonychotes weddelli	11/13/1964	McMurdo Sound, Antarctica	S77	E166	2	33:12.5	8	Good recording. Very quiet ambient. Seals are not too distant.
64181	Leptonychotes weddelli	11/14/1964	McMurdo Sound, Antarctica	S77	E166	2	33:41.6	8	Good recording. Very quiet ambient. Seals are not too distant.
64174	Leptonychotes weddelli	11/15/1964	McMurdo Sound, Antarctica	S77	E166	4	32:12.9	3	Ambient very loud. Generator noise? Animals close by.
64182	Leptonychotes weddelli	11/15/1964	McMurdo Sound, Antarctica	S77	E166	2	33:19.3	8	Good recording. Very quiet ambient. Seals are not too distant.
64183	Leptonychotes weddelli	11/15/1964	McMurdo Sound, Antarctica	S77	E166	2	33:25.0	8	Good recording. Very quiet ambient. Seals are not too distant.
64184	Leptonychotes weddelli	11/15/1964	McMurdo Sound, Antarctica	S77	E166	2	33:25.6	7	Distant seal sounds. Quiet ambient. Good recording.

64185	Leptonychotes weddelli	11/15/1964	McMurdo Sound, Antarctica	S77	E166	2	33:42.9	8	Distant seal sounds in first half then some very close up trills. Quiet ambient. Good recording.
64186	Leptonychotes weddelli	11/15/1964	McMurdo Sound, Antarctica	S77	E166	2	33:35.8	7	Distant seal sounds. Quiet ambient. Good recording.
64187	Leptonychotes weddelli	11/16/1964	McMurdo Sound, Antarctica	S77	E166	2	33:43.7	9	Seal sounds are very loud. Very good recording.
64188	Leptonychotes weddelli	11/16/1964	McMurdo Sound, Antarctica	S77	E166	2	33:45.3	8	Seal sounds are loud. Good recording. Quiet ambient.
64189	Leptonychotes weddelli	11/16/1964	McMurdo Sound, Antarctica	S77	E166	2	33:28.1	9	Seal sounds are very loud. Very good recording. Quiet ambient.
64190	Leptonychotes weddelli	11/16/1964	McMurdo Sound, Antarctica	S77	E166	2	33:30.0	8	Seal sounds are loud. Good recording. Quiet ambient.
64142	Leptonychotes weddelli	11/17/1964	Castle Rock Sulphur Cones, Antarctica	S77	E166	1	16:20.5	9	Small colony of seals. Good Weddell seal recording. Quiet ambient.
64061	Leptonychotes weddelli	11/17/1964	Hutton Cliffs, McMurdo Sound, Antarctica	S77	E166	1	40:40.8	7	Pupping colony. Trills. Quiet ambient. Good recording. Some distortion of close trills.
64062	Leptonychotes weddelli	11/17/1964	Hutton Cliffs, McMurdo Sound, Antarctica	S77	E166	1	16:07.8	6	Trills. Quiet ambient. Good recording. Some distortion of close trills.
64140	Leptonychotes weddelli	11/17/1964	Hutton Cliffs, McMurdo Sound, Antarctica	S77	E166	1	16:23.9	9	Near pupping colony. Weddell seal trills. Good recording. Quiet ambient.
64141	Leptonychotes weddelli	11/17/1964	Hutton Cliffs, McMurdo Sound, Antarctica	S77	E166	1	16:22.4	9	Near pupping colony. Weddell seal trills. Good recording. Quiet ambient.
64193	Leptonychotes weddelli	11/17/1964	McMurdo Sound, Antarctica	S77	E166	2	33:11.9	8	Seal sounds are loud. Good recording. Quiet ambient.
64194	Leptonychotes weddelli	11/17/1964	McMurdo Sound, Antarctica	S77	E166	2	33:38.8	8	Seal sounds are loud. Good recording. Quiet ambient.
64195	Leptonychotes weddelli	11/17/1964	McMurdo Sound, Antarctica	S77	E166	2	33:21.0	9	Seal sounds are very loud at times. Very good recording. Quiet ambient.
64196	Leptonychotes weddelli	11/17/1964	McMurdo Sound, Antarctica	S77	E166	2	33:43.3	7	Seal sounds not too distant. Some voice and footsteps on occasion. Wind and ice.
64198	Leptonychotes weddelli	11/17/1964	McMurdo Sound, Antarctica	S77	E166	2	33:36.3	9	Playback to Weddell seals via Harris C- 1 trans. Good recording.
64192	Leptonychotes weddelli	11/16/1964 - 11/17/1964	McMurdo Sound, Antarctica	S77	E166	2	33:36.0	8	Seal sounds are loud. Good recording. Quiet ambient. Some bits of voice in background.
64197	Leptonychotes weddelli	11/16/1964 - 11/17/1964	McMurdo Sound, Antarctica	S77	E166	4	32:54.7	7	Seal sounds are very loud at times. Recording is overloaded on occasion.
64147	Leptonychotes weddelli	11/22/1964; 1/20/1966	Cape Crozier, Antarctica	S77	E169	1	05:31.6	7	Ice sounds and Weddell seal trills. A bit overloaded.

64051	Leptonychotes weddelli	11/8/1964 - 11/9/1964	McMurdo Sound, Antarctica	S77	E166	2	33:25.4	9	Trills. Quiet ambient. Good recording.
64191	Leptonychotes weddelli	11/9/1964; 11/17/1964	McMurdo Sound, Antarctica	S77	E166	2	33:17.1	9	Seal sounds are very loud. Very good recording. Quiet ambient.
34001	Leptonychotes weddelli; Aptenodytes forsteri	11/19/1934	McMurdo Sound, Antarctica	S77	E166	1	09:38.6	7	Copy of original Lindsey disk, recorded in-air but includes under-ice sounds heard through the ice. Low level of ambient noise. Very good in-air recording.
64144	Leptonychotes weddelli; Aves	11/22/1964	Cape Crozier, Antarctica	S77	E169	1	17:20.7	8	Seals, penguins, ice sounds, water splashes. Good recording, good ambient recording.
64059	Leptonychotes weddelli; Hydrurga leptonyx	11/22/1964	Cape Crozier, Antarctica	S77	E170	1	16:27.2	8	Trills. Quiet ambient. Good recording.
64060	Leptonychotes weddelli; Ice	11/9/1964	2 1/2 mi. E Castle Rock, McMurdo Sound, Antarctica CC5A	S77	E166	1	16:00.5	7	Trills. Quiet ambient. Good recording.
64063	Leptonychotes weddelli; Ice	11/17/1964	Sulphur Cones, Castle Rock, McMurdo Sound, Antarctica	S77	E166	1	16:08.6	7	Trills. Footsteps. Good recording.
65007	Leptonychotes weddelli; Lobodon carcinophagus	2/16/1965	NY Aquarium, NY	unknown	unknown	1	#####	5	Feeding of seals in aquarium. Mostly water splashes.
64079	Leptonychotes weddellii	11/17/1964	McMurdo, Antarctica	S77	E166	2	16:22.8	7	Playback experiment. Good seal sounds.
64080	Leptonychotes weddellii	11/17/1964	McMurdo, Antarctica	S77	E166	2	16:25.9	7	Playback experiment. Good seal sounds.
64081	Leptonychotes weddellii	11/17/1964	McMurdo, Antarctica	S77	E166	2	16:20.3	9	Playback experiment. Good seal sounds.
64082	Leptonychotes weddellii	11/17/1964	McMurdo, Antarctica	S77	E166	1	08:14.9	9	Playback experiment. Good seal sounds.
64083	Leptonychotes weddellii	11/17/1964	McMurdo, Antarctica	S77	E166	1	08:53.6	9	Playback experiment. Good seal sounds.
64084	Leptonychotes weddellii	11/18/1964	McMurdo, Antarctica	S77	E166	2	13:15.1	9	Playback experiment. Good seal sounds.
64085	Leptonychotes weddellii	11/18/1964	McMurdo, Antarctica	S77	E166	2	16:21.6	9	Playback experiment. Good seal sounds.
64086	Leptonychotes weddellii	11/18/1964	McMurdo, Antarctica	S77	E166	2	16:25.1	9	Playback experiment. Good seal sounds.

64087	Leptonychotes weddellii	11/18/1964	McMurdo, Antarctica	S77	E166	2	16:20.0	9	Playback experiment. Good seal sounds.
64088	Leptonychotes weddellii	11/18/1964	McMurdo, Antarctica	S77	E166	2	16:23.9	9	Playback experiment. Good seal sounds.
64089	Leptonychotes weddellii	11/19/1964	McMurdo, Antarctica	S77	E166	2	16:23.9	9	Playback experiment. Good seal sounds.
64090	Leptonychotes weddellii	11/19/1964	McMurdo, Antarctica	S77	E166	2	16:26.7	7	Ambient a bit loud; wind. Trills are distant in beginning, then get closer. Good.
64091	Leptonychotes weddellii	11/19/1964	McMurdo, Antarctica	S77	E166	2	16:29.6	8	Good trills. Low ambient.
64092	Leptonychotes weddellii	11/20/1964	McMurdo, Antarctica	S77	E166	2	17:51.5	8	Good trills. Low ambient. Some footsteps.
64093	Leptonychotes weddellii	11/20/1964	McMurdo, Antarctica	S77	E166	2	16:22.5	7	Good trills. Low ambient.
64094	Leptonychotes weddellii	11/20/1964	McMurdo, Antarctica	S77	E166	2	17:36.0	7	Good trills. Low ambient. Some footsteps.
64100	Leptonychotes weddellii	11/22/1964	Cape Crozier, Ross Island, Antarctica	S77	E170	2	08:20.0	6	Trills a bit distant.
64101	Leptonychotes weddellii	11/22/1964	Cape Crozier, Ross Island, Antarctica	S77	E170	2	08:11.7	7	Trills a bit distant.
64105	Leptonychotes weddellii	11/22/1964	Cape Crozier, Ross Island, Antarctica	S77	E170	2	08:20.0	8	Good recording of Weddell seals. Quiet ambient.
64099	Leptonychotes weddellii; Aptenodytes forsteri	11/22/1964	Cape Crozier, Ross Island, Antarctica	S77	E170	2	08:23.0	4	High ambient noise. Trills in background.
64098	Leptonychotes weddellii; Hydrurga leptonyx; Aptenodytes forsteri	11/22/1964	Cape Crozier, Ross Island, Antarctica	S77	E170	2	08:10.9	8	Good trills. Good recording. Quiet ambient.
64106	Leptonychotes weddellii; Ice	11/22/1964	Cape Crozier, Ross Island, Antarctica	S77	E170	2	08:14.1	7	Much ice noise at beginning. Good recording.
64095	Leptonychotes weddellii; Ice; Aptenodytes forsteri	11/22/1964	Cape Crozier, Ross Island, Antarctica	S77	E170	2	08:17.7	8	Good trills. Ice cracks sometimes loud.

64096	Leptonychotes weddellii; Ice; Aptenodytes forsteri	11/22/1964	Cape Crozier, Ross Island, Antarctica	S77	E170	2	08:13.3	8	Good trills. Ice cracks sometimes loud.
64097	Leptonychotes weddellii; Ice; Aptenodytes forsteri	11/22/1964	Cape Crozier, Ross Island, Antarctica	S77	E170	2	08:14.5	8	Good trills. Ice cracks sometimes loud.
65041	Lobodon carcinophagus; Leptonychotes weddellii	5/18/1905	Antarctica	unknown	unknown	1	16:15.6	5	some distant seals; ambient.
48001	Megaptera novaeangliae	4/13/1948	Bermuda	N32	W064	1	15:17.7	6	Recording is a bit overloaded in the beginning. Moderate level of ambient noise. Good recording of humpback calls. Reverberation is present. SOFAR station
51052	Megaptera novaeangliae	4/25/1951	Kaneohe, HI	N21	W157	1	15:56.7	6	
52002	Megaptera novaeangliae	4/8/1952	6 mi off St David's Head, Bermuda	N32	W064	1	08:08.3	4	Ship creaks and water slaps. Ambient recording.
52007	Megaptera novaeangliae	4/9/1952	3.5 mi off south coast of Bermuda	N32	W064	1	08:10.8	4	Faint calls. High ambient. Ship creaks and water splashes
52014	Megaptera novaeangliae	4/10/1952	5-6 mi SE of St. David's Head, Bermuda	N32	W064	1	08:21.5	4	Ship noise and water splashes. Mostly high ambient recording.
52011	Megaptera novaeangliae	4/10/1952	6 mi SE of Bermuda	N32	W064	1	08:01.8	5	Faint humpback calls. Mostly good ambient recording.
52013	Megaptera novaeangliae	4/10/1952	6 mi SE of St. David's Head, Bermuda	N32	W064	1	07:50.0	4	Blows are audible. Ambient is high. Ship engine noise and phone bumps.
52010	Megaptera novaeangliae	4/10/1952	S of Bermuda	N32	W064	1	08:05.7	5	Ambient recording. Good recording.
52012	Megaptera novaeangliae	4/10/1952	S of Bermuda	N32	W064	1	08:09.5	5	Faint humpback calls. Ship noise and water splashes. Mostly ambient recording.
52016	Megaptera novaeangliae	4/12/1952	6 mi SE of Bermuda	N32	W064	1	08:06.6	6	Faint humpback calls throughout. Reverb. present. Ship noise and water splashes. Good recording.
52015	Megaptera novaeangliae	4/12/1952	6.5 mi E of Castle Harbor, Bermuda	N32	W064	1	08:07.5	5	Ship noise and water splashes. Navy ship and others nearby. Mostly high ambient recording.
52017	Megaptera novaeangliae	4/12/1952	7 mi SE of Bermuda	N32	W064	1	08:23.4	5	Ambient recording.



52018	Megaptera novaeangliae	4/12/1952	9 mi S of St. David's Head, Bermuda	N32	W064	1	08:24.2	6	Faint moans. Low ambient. Good recording.
52019	Megaptera novaeangliae	4/12/1952	9 mi S of St. David's Head, Bermuda	N32	W064	1	08:23.1	6	Faint moans. Low ambient. Good recording.
52020	Megaptera novaeangliae	4/12/1952	9 mi S of St. David's Head, Bermuda	N32	W064	1	08:23.3	6	Faint moans. Low ambient. Good recording.
52021	Megaptera novaeangliae	4/12/1952	9 mi S of St. David's Head, Bermuda	N32	W064	1	08:23.7	6	Faint moans. Low ambient. Good recording.
52022	Megaptera novaeangliae	4/12/1952	9 mi S of St. David's Head, Bermuda	N32	W064	1	08:22.9	7	Moans moderately loud. Low ambient. Good recording.
52023	Megaptera novaeangliae	4/12/1952	9 mi S of St. David's Head, Bermuda	N32	W064	1	08:22.2	7	Moans moderately loud. Low ambient. Good recording.
52024	Megaptera novaeangliae	4/12/1952	9 mi SE of St. David's Head, Bermuda	N32	W064	1	08:23.8	7	Moans moderately loud. Low ambient. Good recording.
52039	Megaptera novaeangliae	4/13/1952	5 mi. E of St. David's Head, Bermuda	N32	W064	1	08:09.1	5	Moans and reverb. Ambient of ship creaks, water splashes, phone bumps.
52030	Megaptera novaeangliae	4/13/1952	5 mi. SSE of St. David's Head, Bermuda	N32	W064	1	07:30.9	5	Faint moans. Low ambient. Good recording. Ship creaks, water splashes, phone bumps.
52040	Megaptera novaeangliae	4/13/1952	5.5 mi.SSE of St. David's Head, Bermuda	N32	W064	1	08:09.7	5	Moans and reverb. High ambient of ship creaks, water splashes, phone bumps. Recorder troubles in first half of tape; second half is good. Good recording.
52041	Megaptera novaeangliae	4/13/1952	5.5 mi.SSE of St. David's Head, Bermuda	N32	W064	1	08:15.0	4	Moans and reverb. High ambient of ship creaks, water splashes, phone bumps. So-so recording.
52042	Megaptera novaeangliae	4/13/1952	5.5 mi.SSE of St. David's Head, Bermuda	N32	W064	1	08:09.9	4	Moans and reverb. High ambient of ship creaks, water splashes, phone bumps. So-so recording.
52026	Megaptera novaeangliae	4/13/1952	6 mi S of St. David's Head, Bermuda	N32	W064	1	08:06.6	5	Faint moans. Low ambient. Good recording.
52027	Megaptera novaeangliae	4/13/1952	6 mi S of St. David's Head, Bermuda	N32	W064	1	08:04.0	5	Faint moans. Low ambient. Good recording.
52028	Megaptera novaeangliae	4/13/1952	6 mi S of St. David's Head, Bermuda	N32	W064	1	08:02.6	5	Faint moans. Low ambient. Good recording. Ship creaks, water splashes, phone bumps.

52029	Megaptera novaeangliae	4/13/1952	6 mi S of St. David's Head, Bermuda	N32	W064	1	08:07.9	5	Faint moans. Low ambient. Good recording. Ship creaks, water splashes, phone bumps.
52031	Megaptera novaeangliae	4/13/1952	Bermuda	N32	W064	1	08:08.1	5	Very faint moans. Snapping shrimp. Ambient of ship creaks, water splashes, phone bumps.
52043	Megaptera novaeangliae	4/14/1952	5.5 mi.SSE of St. David's Head, Bermuda	N32	W064	1	08:09.0	4	Moans and reverb. High ambient of ship creaks, water splashes, phone bumps. So-so recording. Recorder troubles.
52044	Megaptera novaeangliae	4/14/1952	5.5 mi.SSE of St. David's Head, Bermuda	N32	W064	1	08:10.0	4	Moans and reverb. High ambient of ship creaks, water splashes, phone bumps. So-so recording. Recorder troubles.
52045	Megaptera novaeangliae	4/14/1952	5.5 mi.SSE of St. David's Head, Bermuda	N32	W064	1	32:40.4	5	Loud moans and reverb. High ambient of ship creaks, water splashes, phone bumps. Ok recording, but sounds are a bit overloaded. Second half is a good recording. Recorder troubles in the first half.
52046	Megaptera novaeangliae	4/14/1952	5.5 mi.SSE of St. David's Head, Bermuda	N32	W064	1	08:02.9	5	Loud moans and reverb. High ambient of ship creaks, water splashes, phone bumps. Ok recording, but sounds are a bit overloaded.
52047	Megaptera novaeangliae	4/14/1952	5.5 mi.SSE of St. David's Head, Bermuda	N32	W064	1	08:09.5	6	Loud calls. High ambient of ship creaks, water splashes, phone bumps. Good recording.
52048	Megaptera novaeangliae	4/14/1952	5.5 mi.SSE of St. David's Head, Bermuda	N32	W064	1	32:31.1	6	Loud calls. High ambient of ship creaks, water splashes, phone bumps. Good recording.
52049	Megaptera novaeangliae	4/14/1952	5.5 mi.SSE of St. David's Head, Bermuda	N32	W064	1	08:08.2	5	Loud calls. High ambient of ship creaks, water splashes, phone bumps.
52063	Megaptera novaeangliae	4/28/1952	Bermuda	N32	W064	1	02:29.3	5	Many close humpback calls, but a bit distorted.
53009	Megaptera novaeangliae	4/30/1953	Sofar Station, Bermuda	N32	W064	1	31:33.6	8	Phone at 60 ft. Voice overloaded a bit. Much reverb. Nice recording
54017	Megaptera novaeangliae	3/10/1954	Puerto Rico	N18	W065	1	32:29.8	2	Overloaded recording of humpback calls via SOFAR.
54018	Megaptera novaeangliae	3/10/1954	Puerto Rico	N18	W065	1	32:18.9	3	Overloaded recording of humpback calls via SOFAR.
55113	Megaptera novaeangliae	9/2/1955	Bermuda	N32	W064	1	11:41.8	7	Variety of SOFAR noises from 7 tapes with approx 1-min selections. Good recordings.
58018	Megaptera novaeangliae	9/16/1958	Bermuda	N32	W064	1	20:25.8	9	Good recording
61043	Megaptera novaeangliae	9/12/1961	Stellwagen Bank, MA	N42	W070	2	16:11.8	6	Low ambient; some humpback sounds

61041	Megaptera novaeangliae	9/12/1961	Stellwagen Basin, MA	N42	W070	2	16:13.4	5	Low ambient.
61042A	Megaptera novaeangliae	9/12/1961	Stellwagen Basin, MA	N42	W070	1	00:38.9	7	Low ambient; some humpback sounds.
61086	Megaptera novaeangliae	12/4/1961	ME	unknown	unknown	2	44:19.7	5	humpback calls; ambient a bit loud
63019	Megaptera novaeangliae	3/26/1963	Argus Island, Bermuda	N32	W064	2	34:07.5	7	A bit overloaded
77005	Megaptera novaeangliae	4/20/1977	5-6 mi. W Great Island, Cape Cod Bay, MA	N42	W070	4	21:48.9	5	No obvious sounds. Low ambient
77004	Megaptera novaeangliae	4/26/1977	5-6 mi. W Great Island, Cape Cod Bay, MA	N42	W070	4	26:30.9	5	No obvious sounds. Low ambient
81004	Megaptera novaeangliae	5/8/1981	SW corner Stellwagen bank, off MA	N42	W070	3	26:30.0	5	High ambient due to ship engine noise.
55101	Megaptera novaeangliae	//1955	Pt Borinquen, Puerto Rico	N18	W065	1	06:50.5	8	Very good recording of humpbacks.
63043	Megaptera novaeangliae	//1963	Castle Harbour, Bermuda	N32	W064	2	29:39.3	8	Very good recording
51044	Megaptera novaeangliae	4//1951	Sofar Station, Bermuda	N32	W064	1	13:10.4	3	Overloaded
52036	Megaptera novaeangliae, Crustacea snapping shrimp	4/13/1952	E of St Georges, Bermuda	N32	W064	1	08:08.4	5	Very faint moans and grunts. Good recording of snapping shrimp. Ambient of ship creaks, water splashes, phone bumps.
52037	Megaptera novaeangliae, Crustacea snapping shrimp	4/13/1952	E of St Georges, Bermuda	N32	W064	1	08:07.2	5	Humpbacks around ship but about 400 yds distant. Faint moans and some low frequency grunts. Ambient of ship creaks, water splashes, phone bumps.
52035	Megaptera novaeangliae, Crustacea snapping shrimp	4/13/1952	Entrance to St Georges, Bermuda	N32	W064	1	08:07.8	5	Very faint moans. Snapping shrimp. Ambient of ship creaks, water splashes, phone bumps. Good recording of shrimp.
52032	Megaptera novaeangliae, Crustacea snapping shrimp	4/13/1952	Mills breaker E of St Georges, Bermuda	N32	W064	1	08:08.3	5	Very faint moans. Snapping shrimp. Ambient of ship creaks, water splashes, phone bumps.
52033	Megaptera novaeangliae, Crustacea snapping shrimp	4/13/1952	Mills breaker E of St Georges, Bermuda	N32	W064	1	08:03.8	5	Faint moans. Snapping shrimp. Ambient of ship creaks, water splashes, phone bumps.

52034	Megaptera novaeangliae, Crustacea snapping shrimp	4/13/1952	Mills breaker E of St Georges, Bermuda	N32	W064	1	08:04.1	5	Faint moans. Snapping shrimp. Ambient of ship creaks, water splashes, phone bumps. Good recording of snapping shrimp.
61042	Megaptera novaeangliae; Balaenoptera physalus	9/12/1961	Stellwagen Basin, MA	N42	W070	2	16:13.2	7	Low ambient; some humpback and fin sounds
54027	Mirounga angustirostris	4/4/1954	Guadeloupe Is, Mexico	N29	W117	1	12:33.4	9	Low ambient. Very good recording.
65036	Monodon monoceros	8/19/1965	Baffin Island, NWT, Canada	unknown	unknown	1	18:27.5	5	Ambient of water splashes.
65038	Monodon monoceros	8/20/1965	Baffin Island, NWT, Canada	unknown	unknown	1	16:10.4	5	Low Ambient. No animal sounds.
65040	Monodon monoceros	8/21/1965	Baffin Island, NWT, Canada	unknown	unknown	1	16:12.7	5	Some faint sounds. Low ambient.
65037	Monodon monoceros, Phoca hispida	8/20/1965	Baffin Island, NWT, Canada	unknown	unknown	1	16:36.8	5	Some calls present. Ambient of water splashes.
65039	Monodon monoceros, Phoca hispida	8/20/1965	Baffin Island, NWT, Canada	unknown	unknown	1	16:03.3	5	Low Ambient. No animal sounds.
65011	Monodon monoceros; Phoca hispida	8/20/1965	Baffin Island, NWT, Canada	N65	W070	1	15:43.2	6	Quiet recording.
65006	Odobenus rosmarus	3/3/1965	NY Aquarium, NY	unknown	unknown	1	16:26.9	9	Recording of "Olaf". Very good recording of walrus clicks and bells.
65006 copy	Odobenus rosmarus	3/3/1965	NY Aquarium, NY	unknown	unknown	1	4:42.7	9	Copy of 65006 without voice.
56033	Odontoceti	9/20/1956	N. edge of Georges Bank	N42	W067	1	08:08.4	5	Low ambient. Silent ship. A few whistles.
60011	Odontoceti	11/1/1960	Atlantic Ocean	N39	W068	2	12:38.830	5	Ch1 is intermittent. Ch1 is data and Ch2 is voice. Moderate ambient.of phone bumps. Some whistles in middle of recording.
63032	Odontoceti	9/17/1963	W. N. Atlantic	unknown	unknown	1	04:21.7	3	Loud ambient. Some whistles and clicks heard.
63033	Odontoceti	9/17/1963	W. N. Atlantic	unknown	unknown	1	45:00.8	5	Loud ambient. Some whistles and clicks heard.
56001	Odontoceti	6//1956	Queen Charlotte Is., Canada	N53	W132	1	03:38.0	5	Author believes the animals looked like Pilot Whales. Probably a member of the Phocoenidae
60002	Opsanus tau	6/14/1960	WHOI dock, Woods Hole, MA	N41	W070	2	14:43.188	6	Ambient recording off the WHOI dock. Toadfish boat whistles heard on Ch2. Ambient is a bit high at the start. Good recording of toadfish.

61010	Opsanus tau	6/21/1961	Hadley's Harbor, Woods Hole, MA	N41	W070	1	08:14.4	6	Good recording
61011	Opsanus tau	6/21/1961	Hadley's Harbor, Woods Hole, MA	N41	W070	1	08:17.4	6	Good recording
61012	Opsanus tau	6/22/1961	Hadley's Harbor, Woods Hole, MA	N41	W070	1	08:07.1	6	Good recording
61013	Opsanus tau	6/22/1961	Hadley's Harbor, Woods Hole, MA	N41	W070	1	08:06.3	7	Good recording
61014	Opsanus tau	6/22/1961	Hadley's Harbor, Woods Hole, MA	N41	W070	1	08:07.8	6	Good recording
61015	Opsanus tau	6/23/1961	Hadley's Harbor, Woods Hole, MA	N41	W070	1	08:21.6	7	Good recording
61016	Opsanus tau	6/26/1961	Hadley's Harbor, Woods Hole, MA	N41	W070	1	08:16.7	7	Good recording
52064	Opsanus tau, Unidentified porpoises, Crustacea	9/25/1952	New York; Florida	unknown	unknown	1	07:37.2	7	Variety tape of fishes and crustaceans.
51001	Opsanus tau; Tursiops truncatus; Crustacea snapping shrimp	3/16/1951	Marine Studios harbor, St. Augustine, FL	N30	W081	1	08:08.9	2	High ambient noise. Harbor noise.
51003	Opsanus tau; Tursiops truncatus; Crustacea snapping shrimp	3/16/1951	Marine Studios harbor, St. Augustine, FL	N30	W081	1	08:08.8	5	High ambient noise. Harbor noise. Tursiops buzzes and snapping shrimp.
60026	Orcinus orca	12/21/1960	80 mi. S of Martha's Vineyard, MA	N71	W040	1	28:00.000	9	Low ambient. Occasional airplane engine noise. Excellent recording of killer whale calls.
60026B	Orcinus orca	12/21/1960	80 mi. S of Martha's Vineyard, MA	N71	W040	1	33:01.544	9	Copy of tape 60026. Low ambient. Occasional airplane engine noise. Excellent recording of killer whale calls.
64017	Orcinus orca	8/16/1964	Vancouver, British Columbia	N49	W123	2	08:14.2	3	
64018	Orcinus orca	8/16/1964	Vancouver, British Columbia	N49	W123	2	08:12.1	8	Quiet recording. A few killer whale sounds.
64019	Orcinus orca	8/16/1964	Vancouver, British Columbia	N49	W123	2	08:17.6	9	Quiet recording. A few killer whale sounds.
64020	Orcinus orca	8/16/1964	Vancouver, British Columbia	N49	W123	2	08:13.1	8	Quiet recording. A few killer whale sounds.
64021	Orcinus orca	8/17/1964	Vancouver, British Columbia	N49	W123	22	08:12.5		Quiet recording. A few killer whale sounds.
64022	Orcinus orca	8/17/1964	Vancouver, British Columbia	N49	W123	2	08:14.2	5	Quiet recording. No killer whale sounds. Ambient tank recording.

64023	Orcinus orca	8/17/1964	Vancouver, British Columbia	N49	W123	2	08:13.8	7	Loud squeals. Good recording.
64024	Orcinus orca	8/17/1964	Vancouver, British Columbia	N49	W123	2	08:14.2	7	Few sounds. Quiet recording.
64025	Orcinus orca	8/17/1964	Vancouver, British Columbia	N49	W123	2	08:11.8	8	Loud squeals. Good recording.
64027	Orcinus orca	8/17/1964	Vancouver, British Columbia	N49	W123	2	08:27.4		
64029	Orcinus orca	8/18/1964	Vancouver, British Columbia	N49	W123	2	08:24.7		
64030	Orcinus orca	8/18/1964	Vancouver, British Columbia	N49	W123	2	08:04.2	8	Loud squeals. Good recording.
64150	Orcinus orca	8/29/1964	Johnstone Strait, B.C.	N50	W126	1	32:29.2	7	Good recording of a few killer whale calls. Quiet ambient.
64151	Orcinus orca	8/31/1964	Johnstone Strait, B.C.	N50	W126	1	32:56.8	6	Good recording of a few killer whale calls. Quiet ambient.
65034	Orcinus orca	7/23/1965	AK	unknown	unknown	1	35:21.8	1	High ambient!! Overloaded!
64148	Orcinus orca	10/-/1964	Amchitka Island, Aleutian Islands, AK	N51	E179	1	11:10.3		Backwards?
64149	Orcinus orca	7/-/1964	Johnstone Strait, B.C.	N50	W126	1	32:47.9	5	Good recording of "Moby Doll". Quiet ambient in the beginning of the recording. Tug boat passing nearby.
60012	Orcinus orca	10/28/1960	Hood Canal, Dabob Bay, WA	N47	W122	1	5:56.700	8	Low ambient. Very good recording of 3 killer whales in the Hood Canal. Many calls throughout tape.
61062	Orcinus orca	//1961	unknown	N48	W123	1	32:25.7	3	Ambient is loud; calls are cut off in upper freq.
64031	Orcinus orca (Moby Doll)	7/17/1964	Vancouver, British Columbia	N49	W123	2	13:03.7	8	Loud squeals. Good recording.
63003	Phoca groenlandica	1/21/1963	N. Y. Aquarium, N. Y.	unknown	unknown	2	16:05.7	5	Water splashing throughout recording.
63009	Phoca groenlandica, Phoca hispida, Phoca largha	1/22/1963	N. Y. Aquarium, N. Y.	unknown	unknown	2	16:04.9	5	Quiet
63005	Phoca hispida	1/22/1963	N. Y. Aquarium, N. Y.	unknown	unknown	2	16:58.7	5	Water splashing throughout recording.
63010	Phoca hispida, Phoca largha	1/22/1963	N. Y. Aquarium, N. Y.	unknown	unknown	2	05:21.3	8	A few sounds.
56061	Phoca vitulina	7/24/1956	Woods Hole, MA	N41	W071	1	32:11.6	2	Seal noises from seal pen. 3 noises in middle of tape, made by seal with mouth in air. Ambient is high caused by loud generator hum throughout entire recording.

60015	Phoca vitulina	4/13/1960	Lacky's Bay, Naushon Island, MA	N41	W070	1	8:01.431	4	In-air sounds. Moderate ambient of phone bumps.
63026	Phoca vitulina	6/26/1963	Woods Hole Fisheries, Woods Hole, MA	unknown	unknown	2	08:22.9	6	Water drops; phone bumps. Few sounds.
63027	Phoca vitulina	6/26/1963	Woods Hole Fisheries, Woods Hole, MA	unknown	unknown	2	06:50.3	5	Water drops; phone bumps. No obvious animal sounds. Ambient aquarium
64034	Phoca vitulina	8/2/1964	Miami Seaquarium, Fla.	unknown	unknown	2	08:13.3	4	A few sounds. Ambient noise is high.
49011	Phocidae; General mammal	7/28/1949	Saguenay River, Quebec, Canada; Back Lake, Pittsburg, NH	N48; N45	W070; W071	1	1:04:07.8	5	Low ambient noise. Mostly ambient recording during first half of tape. Second half has moderate to high ambient of electrical noise. Second half is an attempt to record beaver.
58023	Phocoena phocoena	11/4/1958	Fletcher's Neck Life Boat Station, ME	N43	W070	2	16:01.8	2	Voice on 1 and data on 2. Overloaded on 2
61074	Phocoena phocoena	9/30/1961	S of Georges Basin, MA	N42	W067	2	15:55.9	8	Low ambient. Faint whistles. Good recording.
65012	Phocoena phocoena	9/8/1965; 9/12/1965; 9/14/1965	Deer Island, New Brunswick, Canada; NY Aquarium, NY	N44	W066	1	8:32.8	8	Good recording. Good porpoise squeals.
65012 copy	Phocoena phocoena	9/8/1965; 9/12/1965; 9/14/1965	Deer Island, New Brunswick, Canada; NY Aquarium, NY	N44	W066	1	16:14.4	9	Reverse copy of 65012. Reduced hum on recording. Aq recording in middle of tape is a recording of Minx and Jinx. Very good recording.
65008	Phocoenoides dalli	4/23/1965	Pt. Magu, CA	N34	W119	2	29:59.2	8	2 Phocoenoides in area. Buzzes. Very good recording.
65014	Phocoenoides dalli	10/26/1965	7 mi. N of Monterey, CA	N36	W122	2	8:15.7	6	Clicks and click series. Best towards last 1/3 of recording. Good recording.
65016	Phocoenoides dalli	10/29/1965	Monterey, CA	N36	W122	2	8:03.0	2	Possible radar pulses. Ambient is high. Much towing of phone.
65015	Phocoenoides dalli	10/29/1965	7 mi. N of Monterey, CA	N36	W122	2	8:10.0	3	A few low level sounds on first 1/3 of tape. Phone towing at 16m below surface. Ambient is high.
65017	Phocoenoides dalli; Zalophus californianus	10/29/1965	Monterey, CA	N36	W122	2	7:57.5	2	No vocalizations, only radar pulses. High ambient.
52001	Physeter catodon	3/31/1952	2000 fm curve S of Woods Hole, MA	N41	W071	1	28:14.2	4	Various tape speeds. Uneven recording quality.
52057	Physeter catodon	4/22/1952	Off MD	N38	W069	1	05:26.0	8	Echosounder present. Copies of reels 7 and 8.

54037	Physeter catodon	1/12/1954	WNA	unknown	unknown	2	15:42.4	5	Reel #3 of scattering layer shots (echosounder). CH 2 is data, Ch 1 is voice.
54038	Physeter catodon	1/12/1954	WNA	unknown	unknown	2	15:55.0	7	Reel #2 of scattering layer shots (echosounder). CH 2 is data, Ch 1 is voice. Very good codas.
54023	Physeter catodon	2/12/1954	unknown	unknown	unknown	1	15:58.1	6	Sperm whale clicks, codas. Replay of reel #4 through Atlantis Edo.
57024	Physeter catodon	6/4/1957	Mid-Atlantic coast of US	N38	W069	1	31:24.0	7	Low ambient. Good recording. Sperm whale clicks. Edo recording.
57029	Physeter catodon	6/27/1957	unknown	unknown	unknown	1	12:35.0	6	Low recording level. Faint sperm whale clicks. OK recording.
58006	Physeter catodon	8/7/1958	Hudson Canyon	N39	W072	2	15:58.1	4	Voice on 1; data on 2. Clicks. Engine constant in bckgrnd. Data overloaded
58004	Physeter catodon	8/7/1958	WNA	N39	W072	2	15:57.4	7	Voice on 1; data on 2. Clicks. Engine constant in bckgrnd.
58005	Physeter catodon	8/7/1958	WNA	N39	W072	2	15:56.7	4	Voice on 1; data on 2. Clicks. Engine overloaded
58007	Physeter catodon	8/7/1958	WNA	N39	W072	2	08:09.1	5	Voice on 1; data on 2. Clicks. Engine constant in bckgrnd. Data overloaded slightly.
58008	Physeter catodon	8/7/1958	WNA	N39	W072	2	12:55.0	7	Voice on 1 and data on 2. Engine noise constant in back but not loud.
58009	Physeter catodon	8/7/1958	WNA	N39	W072	2	08:07.2	8	Voice on 1 and data on 2. Good recording.
58010	Physeter catodon	8/7/1958	WNA	N39	W072	2	08:11.2	8	Voice on 1 and data on 2. Good recording.
59019	Physeter catodon	7/27/1959	Off VA near Wilmington Valley	N37	W073	2	16:28.9	8	Data on Ch1 and voice on Ch2. Low ambient. Good Physeter clicking throughout recording. Good recording.
59020	Physeter catodon	7/27/1959	Off VA near Wilmington Valley	N37	W073	2	16:28.9	8	Data on Ch1 and voice on Ch2. Low ambient for first 3/4 of recording. Good Physeter clicking throughout recording. Good recording.
59021	Physeter catodon	7/27/1959	Off VA near Wilmington Valley	N37	W073	1	08:00.0	7	Data and voice on Ch1. Physeter clicks throughout recording. White tip shark disturbing hydrophone. Good recording. Low ambient.
59023	Physeter catodon	7/28/1959	Off VA near Wilmington Valley	N37	W073	2	15:07.6	8	Data on Ch1 and voice on Ch2. Low ambient. Excellent Physeter click series during first 1/2 of tape. Good recording.
59025	Physeter catodon	7/28/1959	Off VA near Wilmington Valley	N37	W073	2	16:02.9	8	Data on Ch1 and voice on Ch2. Physeter throughout. Low to Moderate ambient caused by ship noise. Good recording.



59032	Physeter catodon	8/22/1959	Off VA near Leonard Canyon	N37	W072	2	16:02.992	6	Data and voice on Ch 1 and 2. Moderate ambient. Ok recording.
61007	Physeter catodon	4/26/1961	SE Atlantic	N00	W019	2	11:10.9	2	phone banging
61019	Physeter catodon	8/2/1961	Off MD near Berkely Canyon	N39	W073	2	16:08.2	7	Good recording
61027	Physeter catodon	8/7/1961	Off MD near Wilmington Canyon	N38	W072	2	16:12.0	9	Very good recording; Usual clicks and codas.
61028	Physeter catodon	8/7/1961	S of Heezen Plateau	N38	W072	2	16:08.7	9	Very good recording; Usual clicks and codas.
62029	Physeter catodon	7/29/1962	Mid-Atlantic	N38	W072	2	26:09.8	8	Good recording.
62031	Physeter catodon	9/17/1962	Near Oceanographer and Lydonia Canyon, MA	N40	W065	2	19:15.1	7	Nearby ship engine noise throughout recording. Usual clicks and codas. Good recording.
64032	Physeter catodon	8/1/1964	Miami Seaquarium, Fla.	unknown	unknown	2	08:13.2	5	Ambient only.
64033	Physeter catodon	8/1/1964	Miami Seaquarium, Fla.	unknown	unknown	2	08:15.9	3	Loud pump noise throughout recording. Playback attempts.
63030	Physeter catodon	//1963	Various	unknown	unknown	1	02:06.6	8	Good comp. looped tape
58038	Physeter catodon	7/26/1958 - 7/27/1958	E of Spain	N41	E005	2	12:19.6	5	Ambient
61020	Physeter catodon		Off MD near Berkely Canyon	N39	W073	2	16:14.2	7	Good recording
61087	Physeter catodon, Megaptera novaeangliae	//1961	Cook Strait, N.Z.	S41	E174	2	30:53.8	8	Good comp. tape. Humpback calls and other sounds
62025	Physeter catodon, Odontoceti	6/4/1962	N of Gulf Stream	N38	W069	2	04:26.8	5	Second half better than first.
62032	Physeter catodon, Stenella coeruleoalba	8//1962	Off PA, E of Nantucket Canyon	N39	W069	2	16:09.0	6	Phone bumping. Good Stenella clicks.
63028	Physeter catodon, Uncertain	6/19/1963	St-Florent, Corsica	N42	E009	2	01:00.2	3	Loud ambient. Some clicks heard.

59024	Physeter catodon; Stenella coeruleoalba	7/28/1959	Off VA near Wilmington Valley	N37	W073	2	16:04.0	5	Data on Ch1 and voice on Ch2. Physeter in beginning with some Stenella whistles. Low ambient of water splashes in beginning of recording. Speed troubles during later half of recording.
59022	Physeter catodon; Stenella coeruleoalba	7/27/1959 - 7/28/1959	Off VA near Wilmington Valley	N37	W073	2	16:29.8	8	Data on Ch1 and voice on Ch2. Low ambient. Excellent Physeter click series during last 1/3 of tape. Good recording.
63040	Pomotomus saltatrix	8/8/1963	Tashmoo, Martha's Vineyard, MA	N41	W071	1	31:32.6	4	Nearby ship engine noise throughout recording.
63041	Pomotomus saltatrix	10/1/1963	Tashmoo, Martha's Vineyard, MA	N41	W071	1	18:23.2	3	Overloaded.
61023	Pseudorca crassidens	8/3/1961	Off MD E of South Wilmington Canyon	N38	W072	2	16:06.6	9	Good recording; Whistles
61022	Pseudorca crassidens	8/3/1961	Off MD near South Wilmington Canyon	N38	W072	2	16:08.1	9	Good recording; Whistles
61021	Pseudorca crassidens; Stenella sp.	8/3/1961	Off MD E of Wilmington Canyon	N38	W072	2	16:14.7	1	Equipment noise
64015	Reptilia	8/3/1964	Bonita Springs, FL	N26	W081	2	08:13.4	4	Alligator sounds. Not a good recording.
54026	Ship signature	10/14/1954	MA	N41	W071	2	08:21.8	2	Ship signature. Asterias making runs first at full power and then at minimal power. Recorder troubles.
60005	Ship signature	7/6/1960	Robinson's Hole, Vineyard Sound, MA	N40	W070	1	7:52.149	5	Ship signature of the Atlantis with a Coast Guard cutter in the beginning.
60007	Ship signature	12/3/1960	WHOI dock, Woods Hole, MA	N41	W070	1	7:17.895	5	Ship signature of the Explorer II.
69011	Sotalia borneensis	8/10/1969 - 8/11/1969	.5 mi. S Mwamba cha, Kenya	S04	E039	1	16:33.4	5	Very few whistles. Quiet ambient, but voice is overloaded.
69012	Sotalia borneensis	8/10/1969 - 8/11/1970	.5 mi. S Mwamba cha, Kenya	S05	E040	2	16:33.5	6	Very few whistles. Quiet ambient, but voice is overloaded.
69013	Sotalia borneensis	8/10/1969 - 8/11/1971	.5 mi. S Mwamba cha, Kenya	S06	E041	3	16:33.6	7	Very few whistles. Quiet ambient, but voice is overloaded.

53011	<i>Steatornis caripensis</i>	8/3/1953	Monogas, Venezuela	S10	W063	1	07:47.3	6	birds
64005	<i>Stenella attenuata</i>	5/5/1963	Costa Rica	N10	W085	1	20:02.2	5	Good recording.
58011	<i>Stenella coeruleoalba</i>	8/11/1958	WNA	N39	W071	2	16:25.6	8	Voice on 1 and data on 2. Good recording. Water splashes, phone movement. Whistles.
58012	<i>Stenella coeruleoalba</i>	8/11/1958	WNA	N39	W071	2	14:34.2	6	Voice on 1 and data on 2. Distant sounds. Water splashes, phone movement.
59033	<i>Stenella coeruleoalba</i>	8/24/1959	Off VA near South Heves Canyon	N38	W072	2	16:07.547	6	Voice on Ch1 and data on Ch 2. Moderate ambient of water splashes and ship engine. Whistles. Good recording.
61024	<i>Stenella coeruleoalba</i>	8/5/1961	Off MD near Heezen Plateau	N38	W071	2	16:16.9	9	Good recording; Whistles
61029	<i>Stenella coeruleoalba</i>	8/10/1961	WNA	N38	W071	2	16:13.2	9	Very good recording; Usual clicks.
61008	<i>Stenella coeruleoalba</i>		Edge of Gulf Stream	N37	W068	2	14:57.1	2	Equipment noise
59034	<i>Stenella coeruleoalba</i>		Off VA near South Heves Canyon	N38	W072	2	16:16.164	6	Voice on Ch1 and data on Ch 2. Moderate ambient of water splashes and ship engine noise from passing fishing boat. Whistles. Good recording.
58015	<i>Stenella coeruleoalba</i> ; Ambient	8/12/1958	WNA	N40	W071	2	13:04.7	5	Voice on 1 and data on 2. No sounds from the animals. Ambient only.
51020	<i>Stenella frontalis</i>	3/23/1951	8 miles E of St. Augustine, FL	N30	W080	1	08:09.5	2	Overload of voice. Motorboat engine noise throughout recording. Tanker passed by. Cable squeaks. No sounds?
51021	<i>Stenella frontalis</i>	3/23/1951	8 miles E of St. Augustine, FL	N30	W080	1	08:08.5	2	Overload of voice. Motorboat engine noise throughout recording. No sounds?
61025	<i>Stenella frontalis</i>	8/6/1961	Off MD near Lindenkohl Canyon	N38	W073	2	16:10.1	9	Very good recording; Whistles and clicks
61026	<i>Stenella frontalis</i>	8/6/1961	Off MD near Lindenkohl Canyon	N38	W073	2	16:18.5	9	Very good recording; Whistles and clicks
70019	<i>Stenella longirostris</i>	//1970	Kealakekua, Hawaii	N19	W156	1	32:06.5		
64004	<i>Stenella longirostris</i> , <i>Tursiops truncatus</i>	3/26/1963	Costa Rica	N10	W085	1	16:37.6	4	Overloaded.

64011	Trichechus manatus	8/2/1964	Miami Seaquarium, FL	unknown	unknown	1	08:12.0	5	Quiet ambient.
64013	Trichechus manatus	8/2/1964	Miami Seaquarium, FL	unknown	unknown	2	08:10.8	5	Loud pump noise throughout recording. Many manatee rasps.
64012	Trichechus manatus	8/2/1964	Miami Seaquarium, FL	unknown	unknown	2	08:14.8	5	Loud pump noise throughout recording. Many manatee rasps.
64014	Trichechus manatus	8/2/1964	Miami Seaquarium, FL	unknown	unknown	2	08:06.9	5	Loud pump noise throughout recording. Many manatee rasps.
64008	Trichechus manatus	8/3/1964	Canal 13, Fort Lauderdale, FL	N26	W080	2	08:22.4	7	Good recording. Quiet ambient.
64009	Trichechus manatus	8/3/1964	Canal 13, Fort Lauderdale, FL	N26	W080	2	08:11.2	7	Good recording. Quiet ambient.
64010	Trichechus manatus	8/3/1964	Canal 13, Fort Lauderdale, FL	N26	W080	2	08:12.6	5	Quiet ambient.
64036	Trichechus manatus	8/2/1964 - 8/3/1964	Canal 13, Fort Lauderdale, Florida	N26	W080	2	01:32.0	7	Compilation tape with examples of manatee sounds
64036A	Trichechus manatus	8/2/1964 - 8/3/1964	Canal 13, Fort Lauderdale, Florida	N26	W080	2	01:31.1	7	Compilation tape with examples of manatee sounds
61091	Tursiops catalania	5/1/1961	Moreton Bay, Australia	S27	E153	1	37:37.642	5	High ambient of machinery near AQ. Whistles are audible.
61092	Tursiops catalania	5/1/1961	Moreton Bay, Australia	S27	E153	1	37:15.184	5	High ambient of machinery near AQ. Whistles are audible.
61093	Tursiops catalania	5/1/1961	Moreton Bay, Australia	S27	E153	1	19:21.877	5	High ambient of machinery and water near AQ. Whistles are audible.
64116	Tursiops sp.	12/8/1964	North end of Acheron Passage, Doubtful Sound, New Zealand	S45	E167	2	04:46.8	3	Ambient. Tursiops nearby, but silent.
64109	Tursiops sp.	12/8/1964	North of Malaspina Reach, Doubtful Sound, New Zealand	S45	E167	2	08:23.7	5	A few Tursiops whistles.
64113	Tursiops sp.	12/8/1964	North of Wood Head, Doubtful Sound, New Zealand	S45	E167	2	08:12.9	5	Tursiops clicks and groans. Phone sloshing in water
64117	Tursiops sp.	12/9/1964	Bradshaw Sound, New Zealand	S45	E167	2	08:11.1	5	Ambient. Tursiops nearby, but silent.

64118	Tursiops sp.	12/9/1964	Lower end of Bradshaw Sound, New Zealand	S45	E167	2	08:17.0	6	Ambient. Ship engine is loud throughout recording. Tursiops whistles.
55009	Tursiops truncatus	7/21/1955	Nonamesset Is. pond, MA	N40	W070	1	08:15.7	6	Hearing and echolocation observations. OK recording of echolocation clicks by a Tursiops. Ambient of water splashes and equipment banging. Reel 9
49021	Tursiops truncatus	5/22/1949	Marine Studios, St. Augustine, FL	N30	W081	1	34:10.1	5	Low ambient of electrical noise and water splashes. No Tursiops vocalizations detected.
49020	Tursiops truncatus	9/20/1949	Marine Studios, St. Augustine, FL	N30	W081	1	43:38.9	6	Low ambient of hydrophone bumps. A few low level series of clicks, whistles and grunts
51009	Tursiops truncatus	3/21/1951	Marine Studios, St. Augustine, FL	N30	W081	1	08:07.9	4	Overload of voice only; buzzes, whistles and jaw claps throughout.
51010	Tursiops truncatus	3/21/1951	Marine Studios, St. Augustine, FL	N30	W081	1	08:08.8	4	Overload of voice only; Banging of phone; much water splashing. Buzzes, whistles.
51011	Tursiops truncatus	3/21/1951	Marine Studios, St. Augustine, FL	N30	W081	1	08:08.3	4	Overload of voice only; Banging of phone; much water splashing. Buzzes.
51012	Tursiops truncatus	3/21/1951	Marine Studios, St. Augustine, FL	N30	W081	1	08:08.3	3	Overload of voice only. Loud generator noise. Banging of phone; much water splashing. Buzzes.
51008	Tursiops truncatus	3/21/1951	San Sebastian River, St. Augustine, FL	N30	W081	1	08:08.5	3	Overload of voice only; whistles at 2:18, 3:07 and 3:25 to EOT
51013	Tursiops truncatus	3/22/1951	Marine Studios, St. Augustine, FL	N30	W081	1	08:08.9	5	Flippy whistling. Overload of voice.
51014	Tursiops truncatus	3/22/1951	Marine Studios, St. Augustine, FL	N30	W081	1	08:09.1	3	Overload of voice only. Loud generator noise. Banging of phone; much water splashing. Buzzes and whistles.
51017	Tursiops truncatus	3/23/1951	12 miles off St. Augustine, FL	N30	W081	1	08:09.2	2	Overload of voice. Motorboat engine noise throughout recording.
51018	Tursiops truncatus	3/23/1951	12 miles off St. Augustine, FL	N30	W080	1	08:09.2	2	Overload of voice. Motorboat engine noise throughout recording. anker passed by. Buzzes?
51022	Tursiops truncatus	3/23/1951	5 miles off St. Augustine, FL	N30	W080	1	06:23.8	2	Overload of voice. Motorboat engine noise throughout recording. No sounds?
51015	Tursiops truncatus	3/23/1951	Marine Studios, St. Augustine, FL	N30	W081	1	08:09.4	3	Overload of voice only. Banging of phone; much water splashing.

51016	Tursiops truncatus	3/23/1951	Marine Studios, St. Augustine, FL	N30	W081	1	08:09.0	2	Overload of voice. Only 1 minute recording.
51023	Tursiops truncatus	3/24/1951	Marine Studios, St. Augustine, FL	N30	W081	1	08:09.3	1	Overload of voice; Banging of phone throughout.
51024	Tursiops truncatus	3/24/1951	Marine Studios, St. Augustine, FL	N30	W081	1	08:18.0	4	Overload of voice; Banging of phone throughout. Whistles.
51025	Tursiops truncatus	3/24/1951	Marine Studios, St. Augustine, FL	N30	W081	1	08:18.5	5	Overload of voice. Whistles.
51026	Tursiops truncatus	3/24/1951	Marine Studios, St. Augustine, FL	N30	W081	1	08:18.5	5	Overload of voice. Whistles.
51027	Tursiops truncatus	3/26/1951	Marine Studios, St. Augustine, FL	N30	W081	1	08:18.6	3	Overload of voice; whistles. Generator hum loud
51028	Tursiops truncatus	3/26/1951	Marine Studios, St. Augustine, FL	N30	W081	1	08:18.2	3	Overload of voice; whistles. Generator hum loud. Buzzes; whistles
51029	Tursiops truncatus	3/26/1951	Marine Studios, St. Augustine, FL	N30	W081	1	08:18.7	4	Overload of voice; Generator hum loud. Buzzes; whistles
51030	Tursiops truncatus	3/26/1951	Marine Studios, St. Augustine, FL	N30	W081	1	08:17.9	3	Overload of voice; Generator hum loud. Buzzes; whistles
51031	Tursiops truncatus	3/26/1951	Marine Studios, St. Augustine, FL	N30	W081	1	08:17.2	1	Overload of voice; Generator hum
51032	Tursiops truncatus	3/26/1951	Marine Studios, St. Augustine, FL	N30	W081	1	08:18.5	1	Overload of voice; Generator hum
51033	Tursiops truncatus	3/27/1951	Marine Studios, St. Augustine, FL	N30	W081	1	08:18.7	1	Overload of voice; Generator hum
51034	Tursiops truncatus	3/27/1951	Marine Studios, St. Augustine, FL	N30	W081	1	08:18.5	1	Overload of voice; Generator hum
51035	Tursiops truncatus	3/29/1951	Windley Key, FL	N25	W080	1	08:18.2	5	Overload of voice; Generator hum; buzzes; some overload of buzzes
51036	Tursiops truncatus	3/29/1951	Windley Key, FL	N26	W081	1	08:18.5	5	Overload of voice; Generator hum; buzzes; some overload of buzzes
51037	Tursiops truncatus	3/29/1951	Windley Key, FL	N27	W082	1	08:07.0	6	Overload of voice; Generator hum; buzzes; some overload of buzzes. Faint whistles.

51039	Tursiops truncatus	4/5/1951	Biscayne Bay, FL	N25	W080	1	08:07.0	6	Motorboat engine noise; Whistles; clicks
51040	Tursiops truncatus	4/6/1951	Biscayne Bay, FL	N25	W080	1	08:06.2	5	Motorboat engine noise; Whistles; clicks
51041	Tursiops truncatus	4/6/1951	Biscayne Bay, FL	N25	W080	1	08:05.9	6	Motorboat engine noise; Whistles; clicks
51041B	Tursiops truncatus	4/6/1951	Biscayne Bay, FL	N25	W080	1	14:30.4	5	Heavy HP filter at 1200; Whistles, buzzes
51041C	Tursiops truncatus	4/6/1951	Biscayne Bay, FL	N25	W080	1	01:20.3	5	Heavy HP filter at 1500; Whistles, buzzes; No voice
51042	Tursiops truncatus	4/6/1951	Biscayne Bay, FL	N25	W080	1	08:04.8	2	Loud consistent noise at 1500 Hz and below
51004	Tursiops truncatus	5/11/1951	San Sebastian River, St. Augustine, FL	N30	W081	1	08:07.3	2	Outboard motor and Generator noise overload; 1st minute is best. Buzzes and whistles in 1st min. Open mike; Overloaded recording. Distorted recording of Tursiops pulsed clicks. High ambient of tank noise.
52075	Tursiops truncatus	4/12/1952	Marine Studios, St. Augustine, FL	N30	W081	1	31:49.8	3	Overloaded recording. Distorted recording of Tursiops pulsed clicks. High ambient of tank noise.
52073	Tursiops truncatus	4/13/1952	Marine Studios, St. Augustine, FL	N30	W081	1	32:12.4	4	Overloaded recording. Distorted recording of Tursiops pulsed clicks. High ambient of tank noise.
54012	Tursiops truncatus	1/13/1954	Marine Studios, St. Augustine, FL	N30	W080	1	32:16.1	2	Manometer readings on Tursiops male
54013	Tursiops truncatus	1/13/1954	Marine Studios, St. Augustine, FL	N30	W080	1	32:06.8	2	Manometer on blowhole of Tursiops male -via needle.
54011	Tursiops truncatus	1/14/1954	Marine Studios, St. Augustine, FL	N30	W080	1	16:40.1	2	Anaesthesia. Old male Tursiops.
54014	Tursiops truncatus	1/14/1954	Marine Studios, St. Augustine, FL	N30	W080	1	32:21.4	2	Tursiops male (Blowhole pressure by means of hypodermic needle).
54015	Tursiops truncatus	1/14/1954	Marine Studios, St. Augustine, FL	N30	W080	1	22:22.7	2	Laryngeal experiments with dead Tursiops male
55001	Tursiops truncatus	7/21/1955	Nonamesset Is. pond, MA	N40	W070	1	08:05.3	8	Hearing and echolocation observations. Very good recording of echolocation clicks by a Tursiops. Low ambient of water splashes and equipment banging.
55002	Tursiops truncatus	7/21/1955	Nonamesset Is. pond, MA	N40	W070	1	08:10.4	9	Hearing and echolocation observations. Very good recording of echolocation clicks by a Tursiops. Low ambient of water splashes and equipment banging.

55003	Tursiops truncatus	7/21/1955	Nonamesset Is. pond, MA	N40	W070	1	04:10.7	7	Hearing and echolocation observations. Good recording of echolocation clicks by a Tursiops. Low ambient of water splashes and equipment banging. Reel 3.
55004	Tursiops truncatus	7/21/1955	Nonamesset Is. pond, MA	N40	W070	1	04:02.7	6	Hearing and echolocation observations. Good recording of echolocation clicks by a Tursiops. Ambient of water splashes and equipment banging. Reel 4
55005	Tursiops truncatus	7/21/1955	Nonamesset Is. pond, MA	N40	W070	1	03:40.0	6	Hearing and echolocation observations. Good recording of echolocation clicks by a Tursiops. Ambient of water splashes and equipment banging. Reel 5
55006	Tursiops truncatus	7/21/1955	Nonamesset Is. pond, MA	N40	W070	1	03:57.1	4	Hearing and echolocation observations. So-so recording of echolocation clicks by a Tursiops. Ambient of water splashes and equipment banging. Recorder troubles throughout. Overloaded sounds from dolphin. Reel 6
55007	Tursiops truncatus	7/21/1955	Nonamesset Is. pond, MA	N40	W070	1	03:43.0	5	Hearing and echolocation observations. OK recording of echolocation clicks by a Tursiops. Ambient of water splashes and equipment banging. Recorder troubles throughout. Reel 7
55008	Tursiops truncatus	7/21/1955	Nonamesset Is. pond, MA	N40	W070	1	03:54.8	6	Hearing and echolocation observations. OK recording of echolocation clicks by a Tursiops. Ambient of water splashes and equipment banging. Recorder troubles throughout. Reel 8
55010	Tursiops truncatus	7/21/1955	Nonamesset Is. pond, MA	N40	W070	1	08:15.2	8	Hearing and echolocation observations. Good recording of echolocation clicks by a Tursiops. Low ambient of water splashes and equipment banging. Reel 10
55011	Tursiops truncatus	7/21/1955	Nonamesset Is. pond, MA	N40	W070	1	08:15.6	8	Hearing and echolocation observations. Good recording of echolocation clicks by a Tursiops. Low ambient of water splashes and equipment banging. Reel 11



55012	Tursiops truncatus	7/21/1955	Nonamesset Is. pond, MA	N40	W070	1	08:15.4	8	Hearing and echolocation observations. Good recording of echolocation clicks by a Tursiops. Low ambient of water splashes and equipment banging. Reel 12
55013	Tursiops truncatus	7/21/1955	Nonamesset Is. pond, MA	N40	W070	1	08:18.5	5	Hearing and echolocation observations. Recording of echolocation clicks by a Tursiops. Low ambient of water splashes and equipment banging. Reel 13
55014	Tursiops truncatus	7/24/1955	Nonamesset Is. pond, MA	N40	W070	1	08:16.6	5	Hearing and echolocation observations. Recording of echolocation clicks by a Tursiops. Low ambient of water splashes and equipment banging. Reel 14
55015	Tursiops truncatus	7/24/1955	Nonamesset Is. pond, MA	N40	W070	1	08:13.0	7	Hearing and echolocation observations. Good recording of echolocation clicks by a Tursiops. Low ambient of water splashes and equipment banging. Reel 15
55016	Tursiops truncatus	7/27/1955	Nonamesset Is. pond, MA	N40	W070	1	08:16.8	7	Hearing and echolocation observations. Good recording of echolocation clicks by a Tursiops. Low ambient of water splashes and equipment banging. Reel 16
55017	Tursiops truncatus	7/27/1955	Nonamesset Is. pond, MA	N40	W070	1	08:15.7	5	Hearing and echolocation observations. Mostly ambient recording of Tursiops in the pond. Very few clicks. Low ambient of water splashes and equipment banging. Reel 17
55018	Tursiops truncatus	7/27/1955	Nonamesset Is. pond, MA	N40	W070	1	08:13.1	8	Hearing and echolocation observations. Good recording of clicks and click bursts. Feeding. Low ambient of water splashes and equipment banging. Reel 18
55019	Tursiops truncatus	7/28/1955	Nonamesset Is. pond, MA	N40	W070	1	09:36.9	5	Hearing and echolocation observations. Good recording of clicks and click bursts. Feeding. Medium level of ambient of water splashes and equipment banging. Reel 19

55020	Tursiops truncatus	7/28/1955	Nonamesset Is. pond, MA	N40	W070	1	08:12.2	6	Hearing and echolocation observations. Good recording of clicks and click bursts. Feeding. Medium level of ambient of water splashes and equipment banging. Attenuator level changed in the latter half of recording. Much better. Reel 20
55021	Tursiops truncatus	7/28/1955	Nonamesset Is. pond, MA	N40	W070	1	08:13.5	7	Hearing and echolocation observations. Good recording of clicks and click bursts. Low level of ambient of water splashes and equipment banging. Attenuator level changed in the latter half of recording. Much better. Reel 21
55022	Tursiops truncatus	7/29/1955	Nonamesset Is. pond, MA	N40	W070	1	08:16.2	6	Hearing and echolocation observations. OK recording of clicks and click bursts. Ambient of ship engine noise, water splashes and equipment banging. Reel 22
55023	Tursiops truncatus	7/29/1955	Nonamesset Is. pond, MA	N40	W070	1	08:13.2	8	Hearing and echolocation observations. Good recording of clicks and click bursts. Feeding. Ambient of water splashes and equipment banging. Reel 23
55024	Tursiops truncatus	7/30/1955	Nonamesset Is. pond, MA	N40	W070	1	08:12.3	8	Hearing and echolocation observations. Good recording of clicks and click bursts. Feeding. Ambient of water splashes and equipment banging. Reel 24
55025	Tursiops truncatus	7/30/1955	Nonamesset Is. pond, MA	N40	W070	1	08:15.5	7	Hearing and echolocation observations. Good recording of clicks and click bursts. Feeding. Ambient of water splashes and equipment banging. Reel 25
55026	Tursiops truncatus	8/5/1955	Nonamesset Is. pond, MA	N40	W070	1	07:50.9	8	Hearing and echolocation observations. Good recording of clicks and click bursts. Feeding. Ambient of water splashes and equipment banging. Reel 26
55030	Tursiops truncatus	8/20/1955	Nonamesset Is. pond, MA	N40	W070	1	08:05.7	6	Hearing and echolocation observations. Good recording of clicks and click bursts. Exploring confined area. Ambient of water splashes and equipment banging. Reel 30

55031	Tursiops truncatus	8/20/1955	Nonamesset Is. pond, MA	N40	W070	1	08:03.7	7	Hearing and echolocation observations. Good recording of clicks and click bursts. Exploring confined area. Ambient of water splashes and equipment banging. Reel 31
55033	Tursiops truncatus	8/21/1955	Nonamesset Is. pond, MA	N40	W070	1	08:04.8	8	Hearing and echolocation observations. Good recording of whistles, clicks and click bursts. Exploring confined area. Ambient of water splashes and equipment banging. Reel 33
55034	Tursiops truncatus	8/21/1955	Nonamesset Is. pond, MA	N40	W070	1	08:03.3	8	Hearing and echolocation observations. Good recording of whistles, clicks and click bursts. Exploring confined area. Ambient of water splashes and equipment banging. Reel 34
55035	Tursiops truncatus	8/21/1955	Nonamesset Is. pond, MA	N40	W070	1	08:04.3	8	Hearing and echolocation observations. Good recording of whistles, clicks and click bursts. Exploring confined area. Ambient of water splashes and equipment banging. Reel 35
55036	Tursiops truncatus	8/21/1955	Nonamesset Is. pond, MA	N40	W070	1	08:13.8	8	Hearing and echolocation observations. Good recording of whistles, clicks and click bursts. Exploring confined area. Ambient of water splashes and equipment banging. Reel 36
55037	Tursiops truncatus	8/21/1955	Nonamesset Is. pond, MA	N40	W070	1	08:03.6	8	Hearing and echolocation observations. Good recording of whistles, clicks and click bursts. Exploring confined area. Ambient of water splashes and equipment banging. Reel 37
55038	Tursiops truncatus	8/21/1955	Nonamesset Is. pond, MA	N40	W070	1	08:04.0	8	Hearing and echolocation observations. Good recording of whistles, clicks and click bursts. Exploring confined area. Ambient of water splashes and equipment banging. Reel 38
55040	Tursiops truncatus	8/21/1955	Nonamesset Is. pond, MA	N40	W070	1	08:07.5	8	Hearing and echolocation observations. Good recording of whistles, clicks and click bursts. Exploring confined area. Ambient of water splashes and equipment banging. Reel 40
55041	Tursiops truncatus	8/21/1955	Nonamesset Is. pond, MA	N40	W070	1	08:07.7	8	Hearing and echolocation observations. Good recording of whistles, clicks and click bursts. Exploring confined area. Ambient of water splashes and equipment banging. Reel 41

55042	Tursiops truncatus	8/21/1955	Nonamesset Is. pond, MA	N40	W070	1	08:05.0	7	Hearing and echolocation observations. Good recording of whistles, clicks and click bursts. Exploring confined area. Ambient of water splashes and equipment banging. Reel 42
55043	Tursiops truncatus	8/22/1955	Nonamesset Is. pond, MA	N40	W070	1	08:08.9	5	Hearing and echolocation observations. Mostly silence. Ambient of water splashes. Reel 43.
55044	Tursiops truncatus	8/22/1955	Nonamesset Is. pond, MA	N40	W070	1	08:08.9	5	Hearing and echolocation observations. Mostly silence. Ambient of water splashes. Reel 44.
55045	Tursiops truncatus	8/22/1955	Nonamesset Is. pond, MA	N40	W070	1	07:36.3	7	Hearing and echolocation observations. Mostly silence. A few pulsed click bursts. Ambient of water splashes. Reel 45.
55046	Tursiops truncatus	8/22/1955	Nonamesset Is. pond, MA	N40	W070	1	08:08.8	8	Hearing and echolocation observations. Good recording of whistles. Ambient of water splashes and equipment banging. Reel 46
55047	Tursiops truncatus	8/24/1955	Nonamesset Is. pond, MA	N40	W070	1	08:07.2	8	Hearing and echolocation observations. Good recording of clicks and click bursts. Feeding. Ambient of water splashes and equipment banging. Reel 47
55049	Tursiops truncatus	8/24/1955	Nonamesset Is. pond, MA	N40	W070	1	08:08.0	7	Hearing and echolocation observations. OK recording of clicks and click bursts. Feeding. Ambient of water splashes and equipment banging. Reel 49
55051	Tursiops truncatus	8/31/1955	Nonamesset Is. pond, MA	N40	W070	1	08:06.8	7	Hearing and echolocation observations. OK recording of clicks and click bursts. Ambient of water splashes and equipment banging. Reel 51
55052	Tursiops truncatus	9/1/1955	Nonamesset Is. pond, MA	N40	W070	1	07:34.6	6	Hearing and echolocation observations. OK recording of clicks and click bursts. Feeding. Ambient of water splashes and equipment banging. Reel 52
55053	Tursiops truncatus	9/3/1955	Nonamesset Is. pond, MA	N40	W070	1	08:03.7	7	Hearing and echolocation observations. Good recording of clicks and click bursts. Feeding. Ambient of water splashes and equipment banging. Reel 53
55054	Tursiops truncatus	9/3/1955	Nonamesset Is. pond, MA	N40	W070	1	08:04.1	8	Hearing and echolocation observations. Good recording of clicks and click bursts. Ambient of water splashes and equipment banging. Reel 54

55055	Tursiops truncatus	9/3/1955	Nonamesset Is. pond, MA	N40	W070	1	08:03.6	8	Hearing and echolocation observations. Good recording of clicks and click bursts. Ambient of water splashes and equipment banging. Reel 55
55056	Tursiops truncatus	9/4/1955	Nonamesset Is. pond, MA	N40	W070	1	08:05.4	8	Hearing and echolocation observations. Good recording of clicks and click bursts. Feeding. Ambient of water splashes and equipment banging. Reel 55
55057	Tursiops truncatus	9/4/1955	Nonamesset Is. pond, MA	N40	W070	1	08:05.1	6	Hearing and echolocation observations. OK recording of clicks and click bursts. Feeding. Ambient of water splashes and equipment banging. Pump running. Reel 56
55058	Tursiops truncatus	9/4/1955	Nonamesset Is. pond, MA	N40	W070	1	08:04.4	6	Hearing and echolocation observations. OK recording of clicks and click bursts. Feeding. Ambient of water splashes and equipment banging. Pump running. Reel 58
55059	Tursiops truncatus	9/5/1955	Nonamesset Is. pond, MA	N40	W070	1	08:02.3	6	Hearing and echolocation observations. OK recording of clicks and click bursts. Ambient of water splashes and equipment banging. Pump running. Reel 59
55060	Tursiops truncatus	9/6/1955	Nonamesset Is. pond, MA	N40	W070	1	13:49.0	7	Hearing and echolocation observations. OK recording of clicks and click bursts. Ambient of water splashes and equipment banging. Reel 60
55061	Tursiops truncatus	9/6/1955	Nonamesset Is. pond, MA	N40	W070	1	08:03.6	7	Hearing and echolocation observations. OK recording of clicks and click bursts. Ambient of water splashes and equipment banging. Reel 61
55063	Tursiops truncatus	9/7/1955	Nonamesset Is. pond, MA	N40	W070	1	08:04.1	8	Hearing and echolocation observations. Very good recording of clicks and click bursts. Ambient of water splashes and equipment banging. Reel 63
55064	Tursiops truncatus	9/10/1955	Nonamesset Is. pond, MA	N40	W070	1	08:07.5	7	Hearing and echolocation observations. Good recording of clicks and click bursts. Ambient of water splashes and equipment banging. Reel 64
55065	Tursiops truncatus	9/10/1955	Nonamesset Is. pond, MA	N40	W070	1	08:07.9	7	Hearing and echolocation observations. Good recording of clicks and click bursts. Ambient of water splashes and equipment banging. Reel 65

55066	Tursiops truncatus	9/10/1955	Nonamesset Is. pond, MA	N40	W070	1	08:07.9	7	Hearing and echolocation observations. Good recording of clicks and click bursts. Ambient of water splashes and equipment banging. Reel 66
55067	Tursiops truncatus	9/10/1955	Nonamesset Is. pond, MA	N40	W070	1	07:49.2	7	Hearing and echolocation observations. Good recording of clicks and click bursts. Ambient of water splashes and equipment banging. Reel 67
55069	Tursiops truncatus	9/13/1955	Nonamesset Is. pond, MA	N40	W070	1	08:06.1	7	Hearing and echolocation observations. Good recording of clicks and click bursts. Ambient of water splashes and equipment banging. Reel 69
55071	Tursiops truncatus	9/15/1955	Nonamesset Is. pond, MA	N40	W070	1	08:07.8	6	Hearing and echolocation observations. OK recording of clicks and click bursts. Ambient of water splashes and equipment banging. Sounds are overloaded at times. Reel 71
55072	Tursiops truncatus	9/18/1955	Nonamesset Is. pond, MA	N40	W070	1	08:05.9	7	Hearing and echolocation observations. Good recording of clicks and click bursts. Ambient of water splashes and equipment banging. Reel 72
55073	Tursiops truncatus	9/18/1955	Nonamesset Is. pond, MA	N40	W070	1	08:02.8	7	Hearing and echolocation observations. Good recording of clicks and click bursts. Ambient of water splashes and equipment banging. Reel 73
55074	Tursiops truncatus	9/18/1955	Nonamesset Is. pond, MA	N40	W070	1	08:04.9	7	Hearing and echolocation observations. Good recording of clicks and click bursts. Ambient of water splashes and equipment banging. Reel 74
55075	Tursiops truncatus	9/27/1955	Nonamesset Is. pond, MA	N40	W070	1	07:25.9	7	Hearing and echolocation observations. OK recording of clicks and click bursts. Ambient of water splashes and equipment banging. Reel 75
55076	Tursiops truncatus	9/27/1955	Nonamesset Is. pond, MA	N40	W070	1	08:06.2	7	Hearing and echolocation observations. OK recording of clicks and click bursts. Ambient of water splashes and equipment banging. Reel 76
55077	Tursiops truncatus	9/28/1955	Nonamesset Is. pond, MA	N40	W070	1	08:03.0	8	Hearing and echolocation observations. Good recording of clicks and click bursts. Ambient of water splashes and equipment banging. Reel 77
55078	Tursiops truncatus	9/28/1955	Nonamesset Is. pond, MA	N40	W070	1	08:04.0	7	Hearing and echolocation observations. Good recording of clicks and click bursts. Ambient of water splashes and equipment banging. Reel 78

55079	Tursiops truncatus	9/28/1955	Nonamesset Is. pond, MA	N40	W070	1	08:04.5	8	Hearing and echolocation observations. Good recording of clicks and click bursts. Ambient of water splashes and equipment banging. Reel 79
55080	Tursiops truncatus	9/28/1955	Nonamesset Is. pond, MA	N40	W070	1	08:00.9	8	Hearing and echolocation observations. Good recording of clicks and click bursts. Ambient of water splashes and equipment banging. Reel 80
55082	Tursiops truncatus	9/29/1955	Nonamesset Is. pond, MA	N40	W070	1	08:04.0	7	Hearing and echolocation observations. Good recording of clicks and click bursts. Ambient of water splashes and equipment banging. Reel 82
55116	Tursiops truncatus	9/29/1955	Nonamesset Is. pond, MA	N40	W070	1	16:18.5	6	Wideband recording. Includes one bit of "Monty" investigating closed door in first net. OK recording.
55117	Tursiops truncatus	9/29/1955	Nonamesset Is. pond, MA	N40	W070	1	16:20.8	6	Feeding experiments involving echolocation capabilities. OK recording.
55118	Tursiops truncatus	9/29/1955	Nonamesset Is. pond, MA	N40	W070	1	16:17.2	6	Wideband recording, called 55-G. Feeding experiments involving echolocation capabilities. OK recording.
55119	Tursiops truncatus	9/29/1955	Nonamesset Is. pond, MA	N40	W070	1	16:16.7	5	Wideband recording, called 55-H. Feeding experiments involving echolocation capabilities. A bit overloaded.
55120	Tursiops truncatus	9/30/1955	Nonamesset Is. pond, MA	N40	W070	1	16:06.6	5	Wideband recording, called 55-I. Feeding experiments involving echolocation capabilities. A bit overloaded.
55121	Tursiops truncatus	9/30/1955	Nonamesset Is. pond, MA	N40	W070	1	16:24.6	6	Wideband recording, called 55-J. Feeding experiments involving echolocation capabilities. OK recording.
55122	Tursiops truncatus	9/30/1955	Nonamesset Is. pond, MA	N40	W070	1	16:24.3	6	Wideband recording, called 55-K. Feeding experiments involving echolocation capabilities. OK recording.
55123	Tursiops truncatus	9/30/1955	Nonamesset Is. pond, MA	N40	W070	1	16:19.2	6	Wideband recording, called 55-L. Feeding experiments involving echolocation capabilities. OK recording.
55124	Tursiops truncatus	9/30/1955	Nonamesset Is. pond, MA	N40	W070	1	16:22.3	6	Wideband recording, called 55-M. Feeding experiments involving echolocation capabilities. OK recording.
55125	Tursiops truncatus	9/30/1955	Nonamesset Is. pond, MA	N40	W070	1	16:24.3	6	Wideband recording, called 55-N. Feeding experiments involving echolocation capabilities. OK recording.
55126	Tursiops truncatus	9/30/1955	Nonamesset Is. pond, MA	N40	W070	1	16:24.0	6	Wideband recording, called 55-O. Feeding experiments involving echolocation capabilities. OK recording.

55127	Tursiops truncatus	10/1/1955	Nonamesset Is. pond, MA	N40	W070	1	16:06.9	7	Wideband recording, called 55-P. Ends with fish #25. Feeding experiments involving echolocation capabilities. Good recording.
55128	Tursiops truncatus	10/1/1955	Nonamesset Is. pond, MA	N40	W070	1	16:06.7	7	Wideband recording, called 55-Q. Feeding experiments involving echolocation capabilities. Good recording.
55129	Tursiops truncatus	10/1/1955	Nonamesset Is. pond, MA	N40	W070	1	16:06.3	7	Wideband recording, called 55-R. Ends with fish #25. Feeding experiments involving echolocation capabilities. Good recording.
55130	Tursiops truncatus	10/1/1955	Nonamesset Is. pond, MA	N40	W070	1	16:06.7	7	Wideband recording, called 55-S. Feeding experiments involving echolocation capabilities. Good recording.
55131	Tursiops truncatus	10/1/1955	Nonamesset Is. pond, MA	N40	W070	1	15:47.1	7	Wideband recording, called 55-T. Feeding experiments involving echolocation capabilities. Good recording.
55132	Tursiops truncatus	10/1/1955	Nonamesset Is. pond, MA	N40	W070	1	16:06.6	6	Wideband recording, called 55-U. Feeding experiments involving echolocation capabilities. Good recording.
55084	Tursiops truncatus	10/2/1955	Nonamesset Is. pond, MA	N40	W070	1	08:07.6	7	Hearing and echolocation observations. Good recording of clicks and click bursts. Ambient of water splashes and equipment banging. Reel 84
55085	Tursiops truncatus	10/2/1955	Nonamesset Is. pond, MA	N40	W070	1	08:03.5	7	Hearing and echolocation observations. Good recording of clicks and click bursts. Ambient of water splashes and equipment banging. Reel 85
55133	Tursiops truncatus	10/2/1955	Nonamesset Is. pond, MA	N40	W070	1	16:19.2	6	Wideband recording, called 55-V. Feeding experiments involving echolocation capabilities. OK recording.
55134	Tursiops truncatus	10/2/1955	Nonamesset Is. pond, MA	N40	W070	1	16:09.4	6	Wideband recording, called 55-W. Feeding experiments involving echolocation capabilities. OK recording.
55135	Tursiops truncatus	10/3/1955	Nonamesset Is. pond, MA	N40	W070	1	16:18.2	6	Wideband recording, called 55-X. Feeding experiments involving echolocation capabilities. OK recording.
55136	Tursiops truncatus	10/3/1955	Nonamesset Is. pond, MA	N40	W070	1	16:20.2	6	Wideband recording, called 55-Y. Feeding experiments involving echolocation capabilities. OK recording.



55137	Tursiops truncatus	10/3/1955	Nonamesset Is. pond, MA	N40	W070	1	16:19.1	6	Wideband recording, called 55-Z. Feeding experiments involving echolocation capabilities. OK recording.
55087	Tursiops truncatus	10/4/1955	Nonamesset Is. pond, MA	N40	W070	1	08:03.7	6	Hearing and echolocation observations. OK recording of clicks and click bursts. Ambient of water splashes and equipment banging. Reel 87
55088	Tursiops truncatus	10/4/1955	Nonamesset Is. pond, MA	N40	W070	1	08:05.3	6	Hearing and echolocation observations. OK recording of clicks and click bursts. Ambient of water splashes and equipment banging. Reel 88
55089	Tursiops truncatus	10/4/1955	Nonamesset Is. pond, MA	N40	W070	1	08:09.4	6	Hearing and echolocation observations. OK recording of clicks and click bursts. Ambient of water splashes and equipment banging. Reel 89
55090	Tursiops truncatus	10/4/1955	Nonamesset Is. pond, MA	N40	W070	1	08:05.4	7	Hearing and echolocation observations. Good recording of clicks and click bursts. Ambient of water splashes and equipment banging. Reel 90
55091	Tursiops truncatus	10/5/1955	Nonamesset Is. pond, MA	N40	W070	1	08:02.5	7	Hearing and echolocation observations. Good recording of clicks and click bursts. Ambient of water splashes and equipment banging. Reel 91
55092	Tursiops truncatus	10/5/1955	Nonamesset Is. pond, MA	N40	W070	1	08:03.3	6	Hearing and echolocation observations. OK recording of clicks and click bursts. Ambient of water splashes and equipment banging. Reel 92
55093	Tursiops truncatus	10/5/1955	Nonamesset Is. pond, MA	N40	W070	1	06:41.4	5	Hearing and echolocation observations. Not much vocalization from the animal. Ambient of water splashes and equipment banging. Reel 93
55094	Tursiops truncatus	10/5/1955	Nonamesset Is. pond, MA	N40	W070	1	05:57.2	5	Hearing and echolocation observations. Not much vocalization from the animal. Ambient of water splashes and equipment banging. Reel 94
55095	Tursiops truncatus	10/6/1955	Nonamesset Is. pond, MA	N40	W070	1	08:00.4	5	Hearing and echolocation observations. Not much vocalization from the animal. Ambient of water splashes and equipment banging. Reel 95
55097	Tursiops truncatus	10/10/1955	Nonamesset Is. pond, MA	N40	W070	1	08:15.0	5	Hearing and echolocation observations. No vocalization from the animal. Ambient of water in pond. Reel 97
56007	Tursiops truncatus	4/5/1956	Marineland of the Pacific Aquarium, San Diego, CA	N33	W117	1	08:12.2	4	Gain is too high. Ambient is high. A few audible whistles.

59008	Tursiops truncatus	7/3/1959	Buzzards Bay, MA	N41	W070	1	08:01.9	3	Data and voice on Ch1. High ambient of ship engine noise. No sounds detected. Poor recording.
59009	Tursiops truncatus	7/3/1959	Buzzards Bay, MA	N41	W070	1	05:15.7	3	Data and voice on Ch1. High ambient of ship engine noise. No sounds detected. Poor recording.
65027	Tursiops truncatus	10/19/1965	Miami Seaquarium, Miami, FL	N25	W080	1	32:30.9	5	Introduction of a wild male to tank. Ambient is high. Whistles and clicks present.
55086	Tursiops truncatus	10/3/1955 - 10/4/1955	Nonamesset Is. pond, MA	N40	W070	1	08:09.0	7	Hearing and echolocation observations. Good recording of clicks and click bursts. Ambient of water splashes and equipment banging. Reel 86
55138	Tursiops truncatus	10/3/1955 - 10/4/1955	Nonamesset Is. pond, MA	N40	W070	1	16:05.5	6	Wideband recording, called 55-Z1. Feeding experiments involving echolocation capabilities. OK recording. Overloaded data. ID's not the best.
61017	Tursiops truncatus	5/12/1961 - 5/13/1961; 5/17/1961	Bimini, Bahamas	N25	W077	1	08:16.1	3	
55032	Tursiops truncatus	8/20/1955 - 8/21/1955	Nonamesset Is. pond, MA	N40	W070	1	08:06.5	7	Hearing and echolocation observations. Good recording of clicks and click bursts. Exploring confined area. Ambient of water splashes and equipment banging. Reel 86
55039	Tursiops truncatus	8/21/1955; 8/28/1955	Nonamesset Is. pond, MA	N40	W070	1	08:07.9	8	Hearing and echolocation observations. Good recording of whistles, clicks and click bursts. Exploring confined area. Ambient of water splashes and equipment banging. Reel 32
55050	Tursiops truncatus	8/29/1955; 8/19/1955	Nonamesset Is. pond, MA	N40	W070	1	08:03.7	7	Hearing and echolocation observations. OK recording of clicks and click bursts. Ambient of water splashes and equipment banging. Reel 39
55068	Tursiops truncatus	9/11/1955 - 9/12/1955	Nonamesset Is. pond, MA	N40	W070	1	08:05.6	7	Hearing and echolocation observations. Good recording of clicks and click bursts. Ambient of water splashes and equipment banging. Reel 50
55070	Tursiops truncatus	9/14/1955 - 9/15/1955	Nonamesset Is. pond, MA	N40	W070	1	08:07.8	7	Hearing and echolocation observations. Good recording of clicks and click bursts. Ambient of water splashes and equipment banging. Reel 68
55081	Tursiops truncatus	9/28/1955 - 9/29/1955	Nonamesset Is. pond, MA	N40	W070	1	08:10.3	7	Hearing and echolocation observations. Good recording of clicks and click bursts. Ambient of water splashes and equipment banging. Reel 70
									Hearing and echolocation observations. Good recording of clicks and click bursts. Ambient of water splashes and equipment banging. Reel 81

55083	Tursiops truncatus	9/29/1955 - 9/30/1955	Nonamesset Is. pond, MA	N40	W070	1	08:04.1	9	Hearing and echolocation observations. Song by Schevill. Good recording of clicks and click bursts. Ambient of water splashes and equipment banging. Reel 83
55062	Tursiops truncatus	9/6/1955 - 9/7/1955	Nonamesset Is. pond, MA	N40	W070	1	08:05.5	8	Hearing and echolocation observations. Very good recording of clicks and click bursts. Ambient of water splashes and equipment banging. Reel 62
52067	Tursiops truncatus (Annie); Crustacea snapping shrimp	4/10/1952	St. Augustine, FL	N30	W081	1	16:25.0	7	Snapping shrimp very loud. Very good recording of snapping shrimp. Tursiops sounds are few and faint.
52068	Tursiops truncatus (Annie); Crustacea snapping shrimp	4/12/1952	St. Augustine, FL	N30	W081	1	16:08.2	3	Feeding of "Annie". Overloaded recording. High ambient. Generator noise is loud.
52069	Tursiops truncatus (Annie); Crustacea snapping shrimp	4/12/1952	St. Augustine, FL	N30	W081	1	16:06.3	5	High ambient of snapping shrimp. Few, if any, Tursiops sounds. Good recording of snapping shrimp.
52065	Tursiops truncatus, Stenella frontalis	//1952	Marine Studios, St. Augustine, FL	N30	W081	1	03:32.2	7	Aquarium recordings. Good recordings.
56006	Tursiops truncatus; Ambient	4/1/1956 - 4/2/1956	Marineland of the Pacific, San Diego, CA	N33	W117	1	07:48.9	4	Quite overloaded from pump noise. Whistles are audible over the loud ambient.
56012	Tursiops truncatus; Ambient	4/5/1956 - 4/6/1956; 4/12/1956	Marineland of the Pacific Aquarium, San Diego, CA; Quicks Hole Buoy, MA	N33; N40	W117; W070	1	07:31.4	5	Tape used for two different recording sessions. Gain is too high. Ambient is high for first recording in CA. The recording of the buoy is ok.
51007	Tursiops truncatus; Crustacea snapping shrimp	3/20/1951	Mouth of San Sebastian River, St. Augustine, FL	N30	W081	1	08:08.4	3	Outboard motor; Open mike; Phone held by hand in 1st half of tape; 1st half is less noisy than 2nd half. Much snapping shrimp
51005	Tursiops truncatus; Crustacea snapping shrimp	3/20/1951	Outer harbor of Marine Studios inlet, St. Augustine, FL	N30	W081	1	08:06.0	4	Outboard motor and Generator noise; Open mike; 3:16 minute mark to EOT is best. Much snapping shrimp

51006	Tursiops truncatus; Crustacea snapping shrimp	3/20/1951	Outer harbor of Marine Studios inlet, St. Augustine, FL	N30	W081	1	08:08.6	4	Outboard motor; Open mike; Much snapping shrimp
61094	Tursiops truncatus; Homo sapiens	4//1961	China Lake, CA	N35	W117	1	17:39.566	5	Copy of commentary from film, "Project Notty". USN tape.
56008	Tursiops truncatus; Lagenorhynchus obliquidens	4/5/1956	Marineland of the Pacific Aquarium, San Diego, CA	N33	W117	1	08:11.5	4	Gain is too high. Ambient is high. A few audible whistles from the Lags. Some Tursiops whistles are present also.
56009	Tursiops truncatus; Lagenorhynchus obliquidens	4/5/1956	Marineland of the Pacific Aquarium, San Diego, CA	N33	W117	1	08:13.2	4	Gain is too high. Ambient is high. A few audible whistles from the Lags. Some Tursiops whistles are present also.
56010	Tursiops truncatus; Lagenorhynchus obliquidens	4/5/1956	Marineland of the Pacific Aquarium, San Diego, CA	N33	W117	1	07:43.2	4	Gain is too high. Ambient is high. Lag and Tursiops whistles are present. Diver in the water with the animals.
70026	Uncertain; Ambient	6/15/1970	9 mi. N Lonely, AK	N71	W153	2	16:23.6	5	Ambient of ice and wind.
51043	Uncertain; Balaenopteridae	4/25/1951	Sofar Station, Bermuda	N32	W064	1	13:26.1	4	Faint calls between 200 and 400 Hz
56070	Unknown	//1956	unknown	unknown	unknown	2	09:49.4	1	Vibrogram recordings. Henkel recordings
63016	Zalophus californianus, Eumetopias jubatus	1/23/1963	Bronx Zoo, N. Y.	unknown	unknown	2	16:01.3	6	Relatively quiet recording. Some water splashing. Sea lion barks.
63017	Zalophus californianus, Eumetopias jubatus	1/23/1963	Bronx Zoo, N. Y.	unknown	unknown	2	16:15.0	7	Relatively quiet recording. Some water splashing. Sea lion barks.
63018	Zalophus californianus, Eumetopias jubatus, Orcinus orca	//1963	California	unknown	unknown	1	36:20.0	2	Poor recording. Overloaded.
No tapes numbered 52059-52062									

**Appendix 3: Prepare a preliminary report on the findings of Task 1 A and B, identifying potential recordings for inclusion into web-based reference datasets. Reference Data Sets are recordings of animals that are definitively identified to species.**

**Table A3-1.** Suggested Reference Data Sets of Marine Mammal Recordings

Species	Date	Location	Recordist	Record Number
<i>Arctocephalus phillippii</i>	11/3/1968	Isla Robinson Crusoe, Juan Fernandez	K. Norris	68032
<i>Balaena mysticetus</i>	4/6/1972	Bering Strait	G. Bloom	72021
<i>Balaenoptera acutorostrata</i>	11/22/1964	Cape Crozier, Antarctica	W. Watkins	64103
<i>Balaenoptera acutorostrata</i>	11/22/1964	Cape Crozier, Antarctica	W. Watkins	64104
<i>Balaenoptera acutorostrata</i>	1964	Cape Crozier, Antarctica	W. Watkins	64101-104
<i>Balaenoptera physalus</i>	1951	Gulf of Maine	W. Watkins	61040-042
<i>Balaenoptera physalus</i>	10/11/1978	Cape Cod Bay, MA	W. Watkins	78014
<i>Cephalorhynchus commersonii</i>	1968	Straits of Magellan, Chile	W. Watkins	68027-030
<i>Cephalorhynchus commersonii</i>	1978	Mystic Aquarium, Mystic, CT	W. Watkins	79016-017
<i>Cephalorhynchus eutropia</i>	1968	Navarino Island, Chile	W. Watkins	68022
		Patanostra Bay, South		
<i>Cephalorhynchus heavisidii</i>	1975	Africa	P. Best	75015
<i>Cephalorhynchus hectori</i>	1964	Kaikura, N. Z.	W. Watkins	64129
<i>Cystophora cristata</i>	1963	NY Aquarium, NY	W. Watkins	63004-08
		Saguenay River, Quebec, CA		
<i>Delphinapterus leucas</i>	6/8/1962	Saguenay River, Quebec, CA	W. Watkins	62026
<i>Delphinapterus leucas</i>	1949	CA	W. Schevill	49001
<i>Delphinus bairdii</i>	1958	Catalina Island, CA	W. Schevill	58021
<i>Delphinus delphis</i>	8/12/1958	New Jersey	W. Watkins	58014
<i>Delphinus delphis</i>	1/30/1987	Canary Islands	W. Watkins	87003
<i>Delphinus delphis</i>	1961	New Jersey	W. Schevill	61030
<i>Erignathus barbatus</i>	5/8/1966	St. Lawrence Island, AK	G. C. Ray	66038
<i>Eubalaena australis</i>	8/1/1982	Wamarnbool, Australia	W. Dawbin	83002
<i>Eubalaena glacialis</i>	1956	Martha's Vineyard, MA	Schleicher	56016-018
<i>Eubalaena glacialis</i>	5/3/1974	Cape Cod Bay, MA	W. Watkins	74003
		Marine Studios, St. Augustine, FL		
<i>Globicephala macrorhynchus</i>	1949	Bequia	W. Schevill	57021
<i>Globicephala macrorhynchus</i>	11/23/1981	Trinity Bay, Newfoundland	W. Watkins	81037
<i>Globicephala melaena</i>	7/18/1954	Trinity Bay, Newfoundland	W. Schevill	54024
<i>Globicephala melaena</i>	1954	Trinity Bay, Newfoundland	W. Schevill	54006
<i>Globicephala scammoni</i>	1958	Catalina Island, CA	W. Schevill	58021
<i>Grampus griseus</i>	7/29/1959	Virginia	W. Watkins	59029
<i>Grampus griseus</i>	8/25/1985	Selina, Italy	W. Watkins	85009
<i>Grampus griseus</i>	1952	New York	W. Schevill	59030

				63001-2; 63007; 63011
<i>Halichoerus grypus</i>	1963	NY Aquarium, NY	W. Watkins	63011
<i>Hydrurga leptonyx</i>	1964	Cape Crozier, Antarctica	W. Watkins	64098
<i>Inia geoffrensis</i>	1956	Silver Springs, FL	W. Schevill	56048
<i>Kogia breviceps</i>	1956	Palos Verdes, CA	D. Caldwell	Unassigned
<i>Lagenodelphis hosei</i>	10/26/1991	Dominica	W. Watkins	91008
<i>Lagenorhynchus acutus</i>	4/25/1979	Cape Cod Bay, MA	W. Watkins	79004
<i>Lagenorhynchus acutus</i>	1954	Cape Cod, MA	W. Schevill	61072
<i>Lagenorhynchus albirostris</i>	5/2/1972	Cape Cod Bay, MA	W. Watkins	72005
<i>Lagenorhynchus australis</i>	1968	Tictoc Bay and Puerto Palena, Chile	W. Watkins	68009
<i>Lagenorhynchus obliquidens</i>	1956	Marineland, Palos Verdes, CA	W. Schevill	Unassigned
<i>Lagenorhynchus obscurus</i>	1964	Kaikura, N. Z.	W. Watkins	64124
<i>Leptonychotes weddelli</i>	11/22/1964	Cape Crozier, Antarctica	W. Watkins	64106
<i>Leptonychotes weddelli</i>	11/4/1964	McMurdo Sound, Antarctica	W. Watkins	64041
<i>Leptonychotes weddelli</i>	11/4/1964	McMurdo Sound, Antarctica	W. Watkins	64042
<i>Megaptera novaeangliae</i>	1951	Kaneohe, HI	W. Schevill	51052
<i>Megaptera novaeangliae</i>	3/26/1963	Bermuda	V. Colman	63019
<i>Mesoplodon densirostris</i>	1969	NE Florida	D. Caldwell	Unassigned
<i>Monodon monoceros</i>	1968	Ellesmere Island, CA	G. C. Ray	68002
<i>Odobenus rosmarus</i>	3/10/1972	St. Lawrence Island, AK	G. C. Ray	72020
<i>Odobenus rosmarus</i>	1963	NY Aquarium, NY	W. Watkins	63007
<i>Ommatophoca rossi</i>	1/9/1966	Cape Adair, Antarctica	G. C. Ray	66034
<i>Ommatophoca rossi</i>	1966	Cape Adair, Antarctica	G. C. Ray	66084-86
<i>Orcinus orca</i>	8/3/1960	S of Martha's Vineyard Vancouver, British	W. Watkins	60026
<i>Orcinus orca</i>	8/16/1964	Columbia	W. Watkins	64020
<i>Peponocephala electra</i>	10/27/1991	Dominica	W. Watkins	91012
<i>Phoca fasciata</i>	1967	St. Lawrence Island, AK	G. C. Ray	67027;029
<i>Phoca groenlandica</i>	5/12/1967	Gulf of St. Lawrence, CA	W. Schevill	67008
<i>Phoca groenlandica</i>	1963	NY Aquarium, NY	W. Watkins	63003; 63009
<i>Phoca hispida</i>	1963	NY Aquarium, NY	W. Watkins	63005; 63009-10
<i>Phoca largha</i>	1963	NY Aquarium, NY	W. Watkins	63003; 63009-10
<i>Phoca vitulina</i>	1960	Naushon Island, MA	W. Watkins	60015
<i>Phocoena phocoena</i>	9/8/1965	Deer Island, New Brunswick, CA	G. C. Ray	65012
<i>Phocoena phocoena</i>	1958	Cape Porpoise, ME	W. Watkins	58023
<i>Phocoenoides dalli</i>	1965	Pt. Mugu, CA	W. Evans	65008
<i>Physeter catodon</i>	8/18/1985	Malta	W. Watkins	85004
<i>Physeter catodon</i>	8/18/1985	Malta	W. Watkins	85005
<i>Physeter catodon</i>	4/29/1987	Dominica	W. Watkins	87017
<i>Physeter catodon</i>	7/22/1988	Ligurian Sea	W. Watkins	88002

<i>Physeter catodon</i>	1952,61	Gulf Stream, W N. Atlantic	Worthington	52001;61027
<i>Pseudorca crassidens</i>	1961	New Jersey	W. Watkins	61023
<i>Sotalia fluviatilis</i>	1966	Niagara Falls Aquarium NY	W. Watkins	66007-014
		Tweed Head Aquarium		
<i>Sousa plumbea</i>	1968	Australia	W. Dawbin	68038
<i>Stenella attenuata</i>	5/7/1994	Dominica	W. Watkins	94008
		Malaita Island, Solomon		
<i>Stenella attenuata</i>	1968	Islands	W. Dawbin	68035-37
<i>Stenella clymene</i>	1981	St. Lucia	W. Watkins	81024
<i>Stenella coeruleoalba</i>	1958	New Jersey	W. Watkins	58011-012
		Marine Studios, St.		
<i>Stenella frontalis</i>	1949	Augustine, FL	W. Schevill	49013-20
<i>Stenella longirostris</i>	5/9/1971	Kealakekua Bay, Hawaii	W. Watkins	71010
<i>Stenella longirostris</i>	1970	Kealakekua Bay, Hawaii	K. Norris	70019
<i>Steno bredanensis</i>	9/4/1985	Kealakekua Bay, Hawaii	W. Watkins	85013
		Tweed Head Aquarium		
<i>Tursiops truncatus</i>	1961	Australia	J. Moulton	61091-93
		Marine Studios, St.		
<i>Tursiops truncatus</i>	1949	Augustine, FL	W. Schevill	51041

**Appendix 4: Identify and review web-accessible archives of marine mammal sounds. Assess web page formats including choices of displaying.**

***Milestone: May 2008***

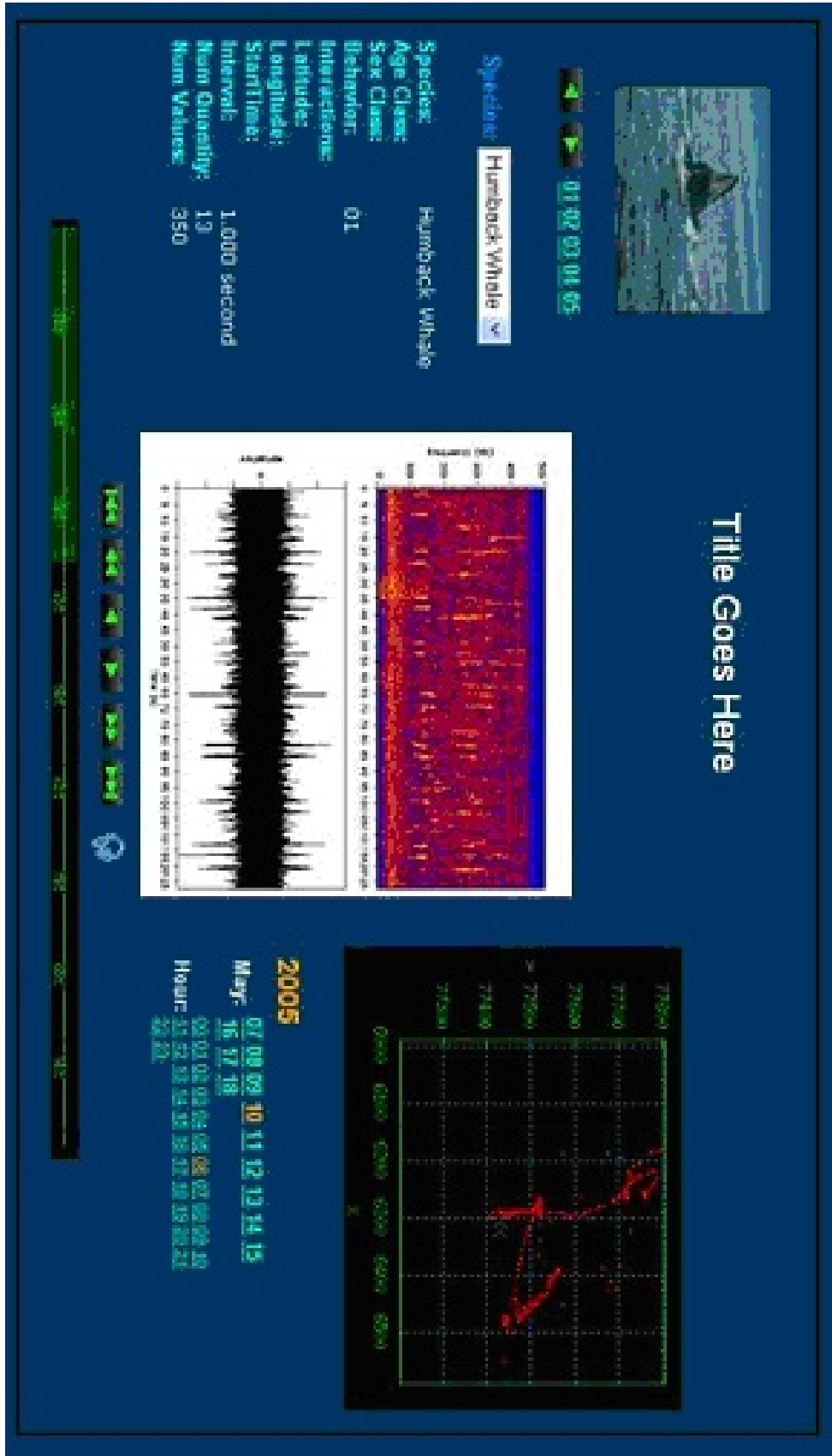
Two web-accessible sound “libraries”, MobySound (<http://hmsc.oregonstate.edu/projects/MobySound>) sponsored by Dr. David K. Mellinger of Oregon State University and the Macaulay Library of the Cornell Laboratory of Ornithology at Cornell University (<http://www.birds.cornell.edu/macaulaylibrary/>), were identified and reviewed as models for the WHOI web sound library. MobySound is a freely accessible collection of vetted datasets of marine mammal vocalizations. The website was designed as a reference tool for researchers interested in the detection and automatic recognition of marine mammal sounds. Metadata for each sound file in MobySound includes: species vocalizing, geographic location of recording, sound speed profile, hydrophone depth, date and time of recording, recording gear, sampling rate of the recorded sound, SNR of recording and the copyright information of the recording. The Macaulay Library is more of a “library” in the traditional sense, containing sound collections recorded by individual researchers during their entire career. The searchable metadata fields include species vocalizing, geographic location of recording, hydrophone depth, date and time of recording, recording gear, sampling rate of the recorded sound, and the name and affiliation of the recordist.

Upon review of these web-accessible collections and their operational philosophies, a potential web page design for the WHOI sound collection is proposed. Figure A4-1 is a mock-up of a proposed web page for the marine mammal sound web database. Possible web page components for a digitized database are: pull-down list of marine animal species with common names and scientific names, pull-down list of dates of recordings, interactive window for playing and viewing waveform and spectrograms of animal vocalizations, and a ship track or map showing latitude and longitude location of acoustic recording. Metadata for each recording will include species, behavioral activity, number of animals, observation date, geographic location, recording conditions (weather, wind, etc), recording gear, recording platform (ship, shore, ice, aquarium, etc), quality of



recording (signal strength), signal type (whistle, click, pulsed bursts, etc), sample rate of sound cut, duration of sound cut, number of channels recorded, etc. This web page is based upon a WHOI designed web-based application built using the “GeoBrowser Technologies.”

Figure A4-1. Web Page for Digitized Database



**Appendix 5: Prepare a final report on the content and quality of recordings of the Watkins marine mammal sound library. Discuss the feasibility of creating a universally accessible web-based archive. Include preliminary cost estimates for creating and maintaining a web-based archive.**

***Milestone: August 2008***

A Study on the Feasibility of Creating a Web-Accessible Marine Mammal Sound Library  
Based upon the Collections at the Woods Hole Oceanographic Institution

### **Abstract**

A universally accessible web-based marine mammal call library using the recordings collected over the years by William Schevill and William Watkins creates an opportunity for scientific studies requiring dependable reference datasets of sounds produced by a species in a defined geographic region during specific seasons. The WHOI Bioacoustics Lab under the direction of Schevill and Watkins recorded more than 90 species of marine animals resulting in approximately 2000 unique recordings. Metadata, organized and stored in stand-alone PCs, already exists for each of these recordings. In addition, these recordings are backed up by a reference library of more than 9000 selected papers (Watkins *et al.* 1990).

This study presents an assessment of the contents of this marine mammal acoustic collection, recommendations for species-specific reference datasets and potential architecture for a web-based library.

### **Introduction**

As environmental laws are created by governments to protect and maintain our oceans,

the U.S. Navy must discover new ways to conduct its operations, engage in research and maintain its military status while remaining in compliance with these laws. In particular, the Endangered Species Act (1973) and the Marine Mammal Protection Act (1972) have explicit regulations regarding naval activities that may occur in the presence of marine mammals. For this reason, it is important for the Navy to confidently know when and where to schedule its exercises so as to minimize any potential impacts upon marine mammals. Thus, for the past decade, the ability to monitor and predict the presence of marine mammals has been an ongoing topic of Naval sponsored research (Redfern *et al.* 2006, Watkins *et al.* 2000a, 2000b). Underwater acoustic detection methods, especially automated systems, have been developing rapidly in recent years due in part to their advantageous ability to monitor marine mammals regardless of environmental conditions. Ocean ambient sounds mixed with sounds that may or may not be produced by marine mammals are being recorded daily by the U.S. Navy (Clark 1994, Nishimura and Conlon 1994, Watkins *et al.* 1997) and other government agencies (Barlow and Taylor 1998, Fox *et al.* 2001). These hours of recordings are not useful for the identification of marine mammals without reference datasets with which to compare. The automation of detecting marine mammal species will require new databases that will provide consistent benchmarks on which to test and compare recognition methods. Free access to a database of oceanic acoustic data will be beneficial to the Navy and to researchers and educators worldwide. A marine mammal call archive provides researchers with a repertoire of species' vocalizations which may be compared to unidentified recordings. Researchers of bird song have realized that archived recordings are extremely valuable for research and education beyond the individual investigator's uses, and have

recommended development of tape archives (Bradbury *et al.* 1999).

The creation of a universally accessible web-based marine mammal call archive using the WHOI Bioacoustics Lab's Marine Mammal Library creates an opportunity for many kinds of scientific studies, particularly those requiring a dependable reference dataset of sounds produced by a species in a defined geographic region during specific seasons. The WHOI Bioacoustics Lab under the direction of Schevill and Watkins recorded more than 90 species of marine animals resulting in approximately 2000 unique recordings. The primary recordings from these species now form a research sound library of about 6000 recordings, in addition to digital sound files organized in databases of more than 20,000 annotated files (Watkins *et al.* 1992). These are backed up by a reference library of more than 9000 selected papers (Watkins *et al.* 1990).

The WHOI library of marine mammal sounds would be an important resource for the ocean research community and would provide the largest and most comprehensive collection of marine animal sounds – primary underwater recordings, annotated digital sound files, organized data search and retrieval systems, relevant literature, and data logs. Most importantly, it would provide recordings definitively identified to species at known locations, times of year, and sometimes age/sex class.

### **History and Taxonomic Breadth of the Woods Hole Oceanographic Institution's Bioacoustics Sound Library**

The pioneer in marine mammal acoustic behavior was WHOI's William E. Schevill. Schevill started the field of marine mammal bioacoustics at WHOI just after WWII. The first scientific recordings of the sounds of any cetaceans were made by

Schevill and his wife, Barbara Lawrence, when they recorded the underwater calls of the beluga, *Delphinapterus leucas*, in the Saguenay River, Quebec, in 1948 (Schevill and Lawrence 1949). These early recordings were made with a WHOI-built Rochelle-salt crystal hydrophone and were captured on a wax disk using a Gray Audograph Dictaphone and later transferred to a 78-RPM phonograph disk (Schevill and Lawrence 1950).

Schevill and Lawrence also were the first to investigate hearing and sound production in the bottlenose dolphin, *Tursiops truncatus*. They demonstrated that these animals used their sounds for echolocation and food finding (Schevill and Lawrence 1956). Schevill and William Watkins were the first to publish a data collection of marine mammal sounds, a LP record album, “Whale and Porpoise Voices,” containing the first recordings of underwater sounds from eighteen species of marine mammals (Schevill and Watkins 1962). Other early sound publications also sometimes included phonograph recordings with the journal, such as the sounds from the walrus, *Odobenus rosmarus*, published by Schevill, Watkins and Ray (1966), and bearded seal, *Erignathus barbatus*, published by Ray, Watkins and Burns in 1969.

In addition to biological sound data from the work of WHOI researchers, other prominent researchers (Kenneth Norris, G. Carleton Ray, Donald Griffin, Melba and David Caldwell, James Johnson, Thomas Poulter, etc.) have contributed their own scientific field recordings to the sound library, increasing the taxonomic breadth of the WHOI Bioacoustics Sound Library. (See Table A5-1 for a list of species represented in the Library.) Non-biological oceanic acoustic data have also been organized and added to the sound library (ice noise, storm and wave effects, geological sounds, ship

signatures, hydrodynamic sound, etc). These ambient recordings of the ocean environment are invaluable to researchers who are studying the apparently increasing level of “noise” in the world’s oceans.

The WHOI Bioacoustics Sound Library is the largest and most diverse archive of marine animal recordings in existence. For over six decades, the WHOI Bioacoustic lab had recorded more than 90 species of marine animals worldwide. Positively identified species from geographic regions ranging from the Arctic to the Antarctic and from Japan to Cape Cod were recorded by Schevill and Watkins (Figure A5-1).

**Figure A5-1. Geographic Locations of Schevill and Watkins Marine Mammal Recordings**



According to a review by Watkins and Wartzok (1985) listing the first recordings of various marine mammal species and their accompanying publications, the very first recordings of fifty-one species of marine mammals are housed here, making this an invaluable Voucher Collection, the first positively identified recordings made of a particular species (Table A5-2).

### **Reference Data Sets**

An initial review of the library of marine animal recordings has been completed. Contained in this library are recordings which have been definitively identified to species at known locations, times of year, and sometimes age/sex class. These benchmark reference datasets with their associated metadata represent the next step in the evolution of marine mammal acoustic classifiers. Suggested Reference Datasets of approximately 100 recordings for 55 species of marine mammals are listed in Table A5-3.

### **Curation and Digitization of Recorded Media**

The recordings cover the years from the 1930s to the early 2000s. The recordings range from 1- 4 channels with a bandwidth ranging from 0 – 100 kHz. To date, approximately 1,000 analog recordings have been digitized with a sample rate of 192 kHz, a standard that has been agreed upon by other marine mammal acoustic researchers.

The recordings are in need of preservation. Since the life-span of reel-reel media is estimated to be 10 - 40 years, the best long-term preservation method is to make digital copies of the analog media (Council on Library and Information Resources and the Library of Congress 2006). Time is of the essence with regards to tape media. Some of



these recordings only exist on the original reel-reel tape that was used by the recordist. The tapes are located in an environmentally-controlled vault at the Woods Hole Oceanographic Institution. The Institution recognizes the scientific value of the collection and is committed to housing these data long-term in suitable facilities. The WHOI Bioacoustics Sound Lab is one of the few remaining facilities in the world that is capable of playing all recorded media. The required recording/playback equipment is fully functional and is maintained by WHOI personnel with over twenty years of experience in handling analog and digital marine animal acoustic recordings.

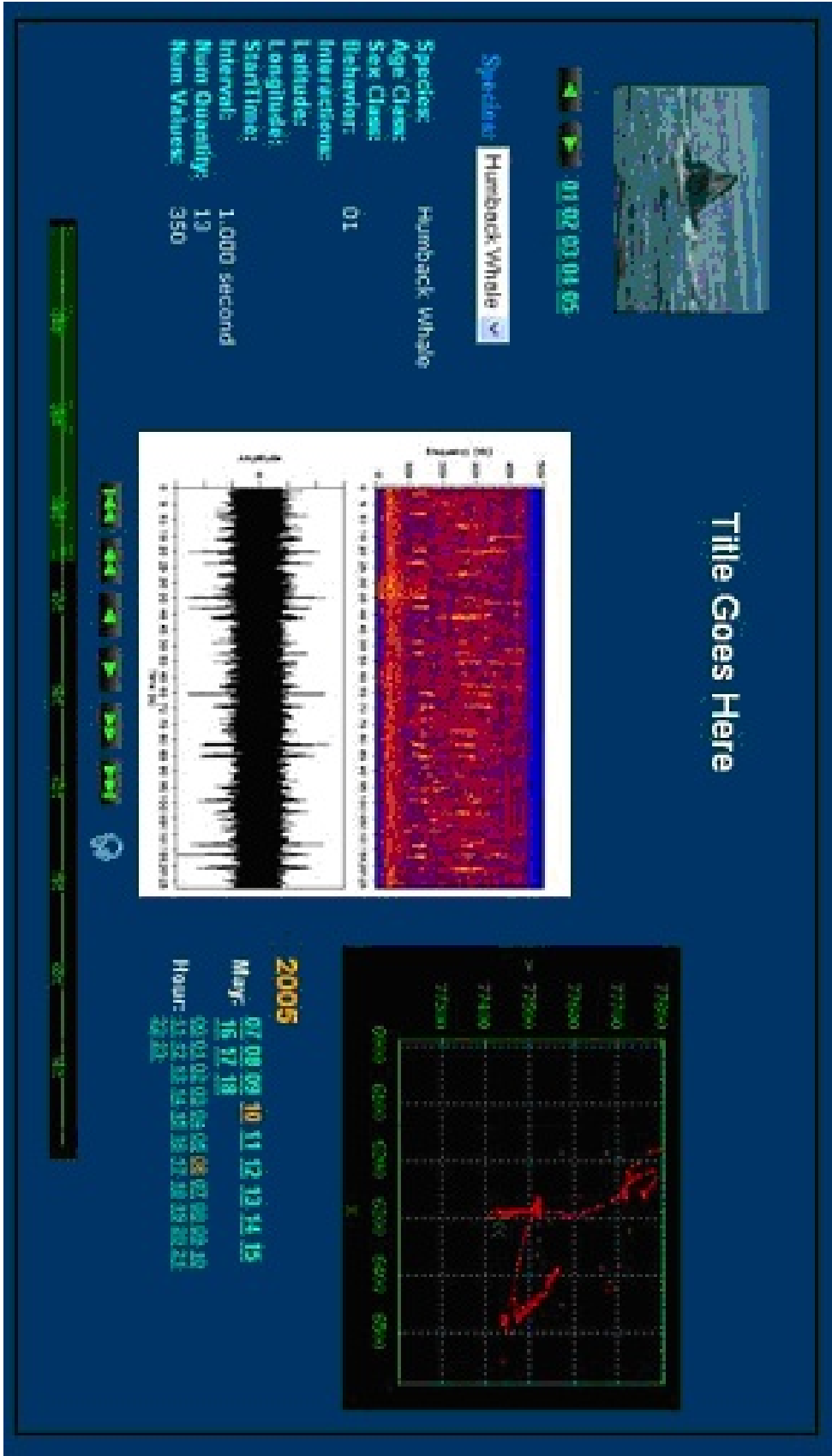
### **Web-based Library**

Once these unique recordings have been digitized, and stored appropriately for a long-term archive, the data must be placed on the web in such a way that investigators, educators, students, and the public are able to: (1) freely and easily access and listen to acoustic samples from marine mammals, (2) observe spectrograms and other visual representations of these acoustic samples, (3) place these samples in a geographic and temporal context and be able to easily find related acoustic samples with the use of space, time, and keyword navigation tools incorporated into the web pages.

A web-based application could be built using the “GeoBrowser Technologies” that have been designed and developed at the Woods Hole Oceanographic Institution over the past nine years (Lerner and Maffei 2001). This technology has been successfully used by WHOI scientists to handle the vast volumes of digital video and camera data generated by ocean exploratory vehicles. The GeoBrowser tool enables scientists and educators to access an entire digital library from a laptop computer. It is

expected that a tool supporting these functions will be of significant benefit to marine mammal scientists, educators and students who require vetted acoustic marine mammal data. Figure A5-2 is a computer screen-shot example of a marine animal vocalization and its associated metadata as accessed from a web-based library of reference data sets.

Figure A5-2. Web Page for Digitized Database



A web-accessible database could be modeled after the PC database that has been in use in the WHOI Bioacoustic Lab since 1990 (Watkins *et al.* 1992). Possible web page components for a digitized database are: pull-down list of marine animal species with common names and scientific names, pull-down list of dates of recordings, interactive window for playing and viewing waveform and spectrograms of animal vocalizations, and a ship track or map showing latitude and longitude location of acoustic recording. Metadata for each recording will include species, behavioral activity, number of animals, observation date, geographic location, recording conditions (weather, wind, etc), recording gear, recording platform (ship, shore, ice, aquarium, etc), quality of recording (signal strength), signal type (whistle, click, pulsed bursts, etc), sample rate of sound cut, duration of sound cut, number of channels recorded, etc.

### **Hardware and Software for Database**

The following is the recommended state-of the-art computer configuration for serving and storing the proposed web-accessible database. The estimated disk-space would provide one with a total of 12TB of raw disk space. (Usable space after formatting and RAID would be around 9TB.) The Sun x4100 is a 1U rack mount server from Sun Microsystems. It would provide the file sharing and management of the database storage. It is also considered as an ideal web server. The second item is the Promise VTrak disk array. It holds up to 12 SATA disks and is what provides the actual disk storage. The third item is a Serial Attach SCSI (SAS) host bus adapter and is the interface card that connects the server to the disk array. Both the disk array and file server have dual redundant power supplies and hot swappable disks. (The system would continue to run

even if a power supply or disk fails.)

I've listed 6 disks at \$140 each. This is an estimate of disk space required for a total raw capacity of 6TB, which would yield about 4TB after formatting and RAID. One can always add more drives later.

### **Itemized Hardware**

Sun Fire X4100 M2 x64 Server: 2x AMD Opteron Model 2216 (2.4GHz/1MB)  
processor with 4x1GB PC2-5300 DDR2-667 memory, 2x 73GB HDD, DVD-  
ROM/CDRW, 2x High Efficiency PSU, Service Processor, 4x 10/100/1000 Ethernet  
ports, 3x USB 2.0 ports, 2x 8-lane PCI-E slots

No power cord, order Geo-specific Xoption Standard Configuration. RoHS-5 =  
\$2895

-----  
Promise VTrak J310sS - hard drive array = \$2595

-----  
Sun StorageTek SAS Host Bus Adapter - PCIe = \$550

-----  
1TB SATA II Disks - 6@\$140 = \$840

Hardware Total: \$7996

WHOI Rack Space (includes conditioned power and cooling): \$350/U x 3 = \$1050

WHOI Network Connection: \$235

Four hours labor for racking and initial configuration: \$220

Total: \$8395

WHOI, recognizing the importance of universally web-accessible databases, hosts many scientific and educational databases in all fields of ocean sciences. WHOI already

possesses the cyber-infrastructure which is designed to support the processes of data collection and data lifecycle management.

## Conclusion

Digital databases offer particularly efficient mechanisms for storing and disseminating audio information along with associated metadata. A database such as what is herein described will help enable the marine mammal acoustic field to grow into one where investigators and educators can specialize in different phases of collection and analysis of standardized datasets.

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**Table A5-1.** Marine Mammal Recordings in the WHOI Bioacoustic Sound Library

<i>Species</i>	<b>Number of Indexed Lots</b>
<i>Arctocephalus philippii</i>	1
<i>Arctocephalus townsendii</i>	1
<i>Balaena mysticetus</i>	35
<i>Balaenoptera acutorostrata</i>	23
<i>Balaenoptera borealis</i>	7
<i>Balaenoptera edeni</i>	1
<i>Balaenoptera musculus</i>	10
<i>Balaenoptera physalus</i>	141
<i>Callorhinus ursinus</i>	3
<i>Caperea marginata</i>	1
<i>Cephalorhynchus commersonii</i>	6
<i>Cephalorhynchus heavisidii</i>	1
<i>Cystophora cristata</i>	3
<i>Delphinapterus leucas</i>	47
<i>Delphinus bairdii</i>	9
<i>Delphinus capensis</i>	1
<i>Delphinus delphis</i>	21
<i>Enhydra lutris</i>	3
<i>Erignathus barbatus</i>	35
<i>Eschrichtius robustus</i>	9
<i>Eubalaena australis</i>	3
<i>Eubalaena glacialis</i>	53
<i>Eumetopia jubatus</i>	7
<i>Globicephala melaena</i>	63
<i>Globicephala macrorhynchus</i>	33
<i>Globicephala scammoni</i>	14
<i>Grampus griseus</i>	48
<i>Halichoerus grypus</i>	7
<i>Hydrurga leptonyx</i>	13
<i>Inia geoffrensis</i>	34
<i>Lagenodelphis hosei</i>	8
<i>Lagenorhynchus australis</i>	10
<i>Lagenorhynchus obscurus</i>	4
<i>Lagenorhynchus acutus</i>	24
<i>Lagenorhynchus obliquidens</i>	6
<i>Leptonychotes weddelli</i>	158
<i>Lobodon carcinophagus</i>	4

<i>Megaptera novaeangliae</i>	159
<i>Mirounga angustirostris</i>	3
<i>Monodon monoceros</i>	5
<i>Mustelidae</i> (Asian river otter)	1
<i>Neophoca cinerea</i>	1
<i>Neophocaena phocaenoides</i>	5
<i>Odobenus rosmarus</i>	36
<i>Ommatophoca rossi</i>	15
<i>Orcinus orca</i>	101
<i>Otaria flavescens</i>	6
<i>Peponocephala electra</i>	4
<i>Phoca fasciata</i>	8
<i>Phoca groenlandica</i>	24
<i>Phoca hispida</i>	8
<i>Phoca largha</i>	5
<i>Phoca vitulina</i>	9
<i>Phocoena phocoena</i>	11
<i>Phocoenoides dalli</i>	6
<i>Physeter catodon</i>	472
<i>Pseudorca crassidens</i>	17
<i>Sotalia borneensis</i>	10
<i>Stenella attenuata</i>	22
<i>Stenella coeruleoalba</i>	28
<i>Stenella frontalis</i>	30
<i>Stenella longirostris</i>	16
<i>Steno bredanensis</i>	4
<i>Trichechus manatus</i>	9
<i>Tursiops catalania</i>	3
<i>Tursiops truncatus</i>	242
<i>Zalophus californianus</i>	12
<i>Ziphius cavirostris</i>	1

**Table A5-2.** Voucher Recordings of Marine Mammal Vocalizations

<i>Species</i>	<b>Geographic Region</b>	<b>Date</b>	<b>RN</b>	<b>Recordist</b>
<i>Arctocephalus phillippii</i>	Isla Robinson Crusoe	1968	68032 72021;	K. Norris
<i>Balaena mysticetus</i>	Bering Strait	1971	78025	G. Bloom
<i>Balaenoptera acutorostrata</i>	Cape Crozier, Antarctica	1964	64101-104	W. Watkins
<i>Balaenoptera physalus</i>	Gulf of Maine	1951	61040-042	W. Watkins
<i>Cephalorhynchus commersonii</i>	Straits of Magellan, Chile	1968	68027-030	W. Watkins
<i>Cephalorhynchus commersonii</i>	Mystic Aquarium, Mystic, CT	1978	79016-017	W. Watkins
<i>Cephalorhynchus eutropia</i>	Navarino Island, Chile	1968	68022	W. Watkins
<i>Cephalorhynchus heavisidii</i>	Patanostro Bay, South Africa	1975	75015	P. Best
<i>Cephalorhynchus hectori</i>	Kaikura, N. Z.	1964	64129 63004; 63006;	W. Watkins
<i>Cystophora cristata</i>	NY Aquarium, NY	1963	63008	W. Watkins
<i>Delphinapterus leucas</i>	Saguenay River, Quebec, CA	1949	49001	W. Schevill
<i>Delphinus bairdii</i>	Catalina Island, CA	1958	58021	W. Schevill
<i>Delphinus delphis</i>	New Jersey	1961	61030	W. Schevill K.
<i>Eubalaena glacialis</i>	Martha's Vineyard, MA	1956	56016-018	Schleicher
<i>Globicephala macrorhynchus</i>	Marine Studios, FL	1949	57021	W. Schevill
<i>Globicephala melaena</i>	Trinity Bay, Newfoundland	1954	54006	W. Schevill
<i>Globicephala scammoni</i>	Catalina Island, CA	1958	58021	W. Schevill
<i>Grampus griseus</i>	New York	1952	59030 63001-2; 63007;	W. Schevill
<i>Halichoerus grypus</i>	NY Aquarium, NY	1963	63011	W. Watkins
<i>Hydrurga leptonyx</i>	Cape Crozier, Antarctica	1964	64098	W. Watkins
<i>Inia geoffrensis</i>	Silver Springs, FL	1956	56048	W. Schevill
<i>Kogia breviceps</i>	Palos Verdes, CA	1956	Unk.	D.Caldwell
<i>Lagenorhynchus acutus</i>	Cape Cod, MA	1954	61072	W. Schevill
<i>Lagenorhynchus australis</i>	Tictoc Bay, Chile	1968	Unk.	W. Watkins
<i>Lagenorhynchus obliquidens</i>	Marineland, Palos Verdes, CA	1956	Unk.	W. Schevill
<i>Lagenorhynchus obscurus</i>	Kaikura, N. Z.	1964	Unk.	W. Watkins
<i>Megaptera novaeangliae</i>	Kaneohe, HI	1951	Unk.	W. Schevill
<i>Mesoplodon densirostris</i>	NE Florida	1969	Unk.	D. Caldwell
<i>Monodon monoceros</i>	Ellesmere Island, CA	1968	68002	G. C. Ray
<i>Odobenus rosmarus</i>	NY Aquarium, NY	1963	63007	W. Watkins
<i>Ommatophoca rossi</i>	Cape Adair, Antarctica	1966	66084-86	G. C. Ray
<i>Phoca fasciata</i>	St. Lawrence Island, AK	1967	67027;029 63003;	G. C. Ray
<i>Phoca groenlandica</i>	NY Aquarium, NY	1963	63009 63005;	W. Watkins
<i>Phoca hispida</i>	NY Aquarium, NY	1963	63009-10 63003;	W. Watkins
<i>Phoca largha</i>	NY Aquarium, NY	1963	63009-10	W. Watkins
<i>Phoca vitulina</i>	Naushon Island, MA	1960	60015	W. Watkins

<i>Phocoena phocoena</i>	Cape Porpoise, ME	1958	58023	W. Watkins
<i>Phocoenoides dalli</i>	Pt. Mugu, CA	1965	65008	W. Evans
<i>Physeter catodon</i>	Gulf Stream, W N. Atlantic	1952,61	52001;61027	Worthington
<i>Pseudorca crassidens</i>	New Jersey	1961	61023	W. Watkins
<i>Sotalia fluviatilis</i>	Niagara Falls Aquarium NY	1966	66007-014	W. Watkins
	Tweed Head Aquarium			
<i>Sousa plumbea</i>	Australia	1968	68038	W. Dawbin
	Malaita Island, Solomon			
<i>Stenella attenuata</i>	Islands	1968	68035-37	W. Dawbin
<i>Stenella clymene</i>	St. Lucia	1981	81024	W. Watkins
<i>Stenella coeruleoalba</i>	New Jersey	1958	58011-012	W. Watkins
<i>Stenella frontalis</i>	Marine Studios, FL	1949	49013-20	W. Schevill
<i>Stenella longirostris</i>	Kealakekua Bay, Hawaii	1970	70019	K. Norris
	Tweed Head Aquarium			
<i>Tursiops catalania</i>	Australia	1961	61091-93	J. Moulton
<i>Tursiops truncatus</i>	Marine Studios, FL	1949	51041	W. Schevill

**Table A5-3.** Reference Data Sets of Marine Mammal Recordings

Species	Date	Location	Recordist	Record Number
<i>Arctocephalus phillippii</i>	11/3/1968	Isla Robinson Crusoe, Juan Fernandez	K. Norris	68032
<i>Balaena mysticetus</i>	4/6/1972	Bering Strait	G. Bloom	72021
<i>Balaenoptera acutorostrata</i>	11/22/1964	Cape Crozier, Antarctica	W. Watkins	64103
<i>Balaenoptera acutorostrata</i>	11/22/1964	Cape Crozier, Antarctica	W. Watkins	64104
<i>Balaenoptera acutorostrata</i>	1964	Cape Crozier, Antarctica	W. Watkins	64101-104
<i>Balaenoptera physalus</i>	1951	Gulf of Maine	W. Watkins	61040-042
<i>Balaenoptera physalus</i>	10/11/1978	Cape Cod Bay, MA	W. Watkins	78014
<i>Cephalorhynchus commersonii</i>	1968	Straits of Magellan, Chile	W. Watkins	68027-030
<i>Cephalorhynchus commersonii</i>	1978	Mystic Aquarium, Mystic, CT	W. Watkins	79016-017
<i>Cephalorhynchus eutropia</i>	1968	Navarino Island, Chile	W. Watkins	68022
		Patanostra Bay, South Africa		
<i>Cephalorhynchus heavisidii</i>	1975	Africa	P. Best	75015
<i>Cephalorhynchus hectori</i>	1964	Kaikura, N. Z.	W. Watkins	64129
<i>Cystophora cristata</i>	1963	NY Aquarium, NY	W. Watkins	63004-08
		Saguenay River, Quebec, CA		
<i>Delphinapterus leucas</i>	6/8/1962	Saguenay River, Quebec, CA	W. Watkins	62026
<i>Delphinapterus leucas</i>	1949	CA	W. Schevill	49001
<i>Delphinus bairdii</i>	1958	Catalina Island, CA	W. Schevill	58021
<i>Delphinus delphis</i>	8/12/1958	New Jersey	W. Watkins	58014
<i>Delphinus delphis</i>	1/30/1987	Canary Islands	W. Watkins	87003
<i>Delphinus delphis</i>	1961	New Jersey	W. Schevill	61030
<i>Erignathus barbatus</i>	5/8/1966	St. Lawrence Island, AK	G. C. Ray	66038
<i>Eubalaena australis</i>	8/1/1982	Wamarnbool, Australia	W. Dawbin	83002
<i>Eubalaena glacialis</i>	1956	Martha's Vineyard, MA	Schleicher	56016-018
<i>Eubalaena glacialis</i>	5/3/1974	Cape Cod Bay, MA	W. Watkins	74003
		Marine Studios, St. Augustine, FL		
<i>Globicephala macrorhynchus</i>	1949	Augustine, FL	W. Schevill	57021
<i>Globicephala macrorhynchus</i>	11/23/1981	Bequia	W. Watkins	81037
<i>Globicephala melaena</i>	7/18/1954	Trinity Bay, Newfoundland	W. Schevill	54024
<i>Globicephala melaena</i>	1954	Trinity Bay, Newfoundland	W. Schevill	54006
<i>Globicephala scammoni</i>	1958	Catalina Island, CA	W. Schevill	58021
<i>Grampus griseus</i>	7/29/1959	Virginia	W. Watkins	59029
<i>Grampus griseus</i>	8/25/1985	Selina, Italy	W. Watkins	85009
<i>Grampus griseus</i>	1952	New York	W. Schevill	59030
				63001-2; 63007;
<i>Halichoerus grypus</i>	1963	NY Aquarium, NY	W. Watkins	63011
<i>Hydrurga leptonyx</i>	1964	Cape Crozier, Antarctica	W. Watkins	64098
<i>Inia geoffrensis</i>	1956	Silver Springs, FL	W. Schevill	56048
<i>Kogia breviceps</i>	1956	Palos Verdes, CA	D. Caldwell	unassigned
<i>Lagenodelphis hosei</i>	10/26/1991	Dominica	W. Watkins	91008
<i>Lagenorhynchus acutus</i>	4/25/1979	Cape Cod Bay, MA	W. Watkins	79004

<i>Lagenorhynchus acutus</i>	1954	Cape Cod, MA	W. Schevill	61072
<i>Lagenorhynchus albirostris</i>	5/2/1972	Cape Cod Bay, MA	W. Watkins	72005
<i>Lagenorhynchus australis</i>	1968	Tictoc Bay and Puerto Palena, Chile	W. Watkins	68009
<i>Lagenorhynchus obliquidens</i>	1956	Marineland, Palos Verdes, CA	W. Schevill	unassigned
<i>Lagenorhynchus obscurus</i>	1964	Kaikura, N. Z.	W. Watkins	64124
<i>Leptonychotes weddelli</i>	11/22/1964	Cape Crozier, Antarctica	W. Watkins	64106
<i>Leptonychotes weddelli</i>	11/4/1964	McMurdo Sound, Antarctica	W. Watkins	64041
<i>Leptonychotes weddelli</i>	11/4/1964	McMurdo Sound, Antarctica	W. Watkins	64042
<i>Megaptera novaeangliae</i>	1951	Kaneohe, HI	W. Schevill	51052
<i>Megaptera novaeangliae</i>	3/26/1963	Bermuda	V. Colman	63019
<i>Mesoplodon densirostris</i>	1969	NE Florida	D. Caldwell	unassigned
<i>Monodon monoceros</i>	1968	Ellesmere Island, CA	G. C. Ray	68002
<i>Odobenus rosmarus</i>	3/10/1972	St. Lawrence Island, AK	G. C. Ray	72020
<i>Odobenus rosmarus</i>	1963	NY Aquarium, NY	W. Watkins	63007
<i>Ommatophoca rossi</i>	1/9/1966	Cape Adair, Antarctica	G. C. Ray	66034
<i>Ommatophoca rossi</i>	1966	Cape Adair, Antarctica	G. C. Ray	66084-86
<i>Orcinus orca</i>	8/3/1960	S of Martha's Vineyard	W. Watkins	60026
<i>Orcinus orca</i>		Vancouver, British Columbia	W. Watkins	64020
<i>Peponocephala electra</i>	8/16/1964	Columbia	W. Watkins	91012
<i>Phoca fasciata</i>	10/27/1991	Dominica	W. Watkins	67027;029
<i>Phoca groenlandica</i>	1967	St. Lawrence Island, AK	G. C. Ray	67027;029
<i>Phoca groenlandica</i>	5/12/1967	Gulf of St. Lawrence, CA	W. Schevill	67008
<i>Phoca groenlandica</i>				63003;
<i>Phoca hispidia</i>	1963	NY Aquarium, NY	W. Watkins	63009
<i>Phoca hispidia</i>				63005;
<i>Phoca largha</i>	1963	NY Aquarium, NY	W. Watkins	63009-10
<i>Phoca vitulina</i>	1960	Naushon Island, MA	W. Watkins	63003;
<i>Phocoena phocoena</i>				63009-10
<i>Phocoena phocoena</i>		Deer Island, New Brunswick, CA	W. Watkins	60015
<i>Phocoenoides dalli</i>	9/8/1965	Brunswick, CA	G. C. Ray	65012
<i>Physeter catodon</i>	1958	Cape Porpoise, ME	W. Watkins	58023
<i>Physeter catodon</i>	1965	Pt. Mugu, CA	W. Evans	65008
<i>Physeter catodon</i>	8/18/1985	Malta	W. Watkins	85004
<i>Physeter catodon</i>	8/18/1985	Malta	W. Watkins	85005
<i>Physeter catodon</i>	4/29/1987	Dominica	W. Watkins	87017
<i>Physeter catodon</i>	7/22/1988	Ligurian Sea	W. Watkins	88002
<i>Physeter catodon</i>	1952,61	Gulf Stream, W N. Atlantic	Worthington	52001;61027
<i>Pseudorca crassidens</i>	1961	New Jersey	W. Watkins	61023
<i>Sotalia fluviatilis</i>	1966	Niagara Falls Aquarium NY	W. Watkins	66007-014
<i>Sousa plumbea</i>		Tweed Head Aquarium		
<i>Stenella attenuata</i>	1968	Australia	W. Dawbin	68038
<i>Stenella attenuata</i>	5/7/1994	Dominica	W. Watkins	94008
<i>Stenella attenuata</i>		Malaita Island, Solomon Islands		
<i>Stenella attenuata</i>	1968	Islands	W. Dawbin	68035-37

<i>Stenella clymene</i>	1981	St. Lucia	W. Watkins	81024
<i>Stenella coeruleoalba</i>	1958	New Jersey	W. Watkins	58011-012
		Marine Studios, St.		
<i>Stenella frontalis</i>	1949	Augustine, FL	W. Schevill	49013-20
<i>Stenella longirostris</i>	5/9/1971	Kealakekua Bay, Hawaii	W. Watkins	71010
<i>Stenella longirostris</i>	1970	Kealakekua Bay, Hawaii	K. Norris	70019
<i>Steno bredanensis</i>	9/4/1985	Kealakekua Bay, Hawaii	W. Watkins	85013
		Tweed Head Aquarium		
<i>Tursiops truncatus</i>	1961	Australia	J. Moulton	61091-93
		Marine Studios, St.		
<i>Tursiops truncatus</i>	1949	Augustine, FL	W. Schevill	51041

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